POMONA,

OR AN

APPENDIX

CONCERNING

FRUIT-TREES,

In relation to

CIDER,

The *Making*, and ſeveral ways of *Ordering* it.

VIRG. Eclog. ix.

——*Carpent tua Poma nepotes.*

LONDON,

Printed by *John Martyn* and *James Allestry*, Printers to the *Royal Society*. MDCLXX.

To the Right Honourable

THOMAS

Earl of *SOUTHAMPTON*,

Lord HIGH TREASURER

OF

ENGLAND, &c.

My Lord,

IF great *Examples* did not ſupport it, the dignity and greatneſs of your *Perſon* would ſoon have given cheque to this preſumption: But ſince *Emperours* and *Kings* have not only gratefully accepted *Works* of this nature, but honor'd them likewiſe with their own ſacred hands, that *Name* of yours, (which ought indeed never to appear but on Inſtruments of *State* and fronts of *Marble*, conſecrating your *Wiſdom* and *Vertues* to *Eternity*) will be no way leſſen'd by giving Patronage to theſe appendant *Ruſticities*. It is from the Protection and Cheriſhment of ſuch as your *Lordſhip* is, that theſe *Endeavours* of ours may hope one day to ſucceed and be proſperous. The nobleſt and moſt uſeful Structures have laid their Foundations in the *Earth*: if that prove firm *here* (and *firm* I pronounce it to be, if your *Lordſhip* favour it) We ſhall go on and flouriſh. I ſpeak now in relation to the *Royal Society*, not my ſelf, who am but a *Servant* of it only, and a *Pioner* in the *Works*. But be its *fate* what it will, Your *Lordſhip*, who is a *Builder*, and a lover of all *Magnificences*, cannot be diſpleas'd at theſe agreeable Acceſ-

ſories

ſories of *Planting*, and of *Gard'ning*. But, my *Lord*, I pretend by it yet ſome farther ſervice to the *State* than that of meerly *profit*, if in contributing to your divertiſement I provide for the *Publick health*, which is ſo precious and neceſſary to it in your excellent *Perſon*. Vouchſafe *POMONA* your *Lordſhips* hand to kiſs, and the humble *Preſenter* of theſe *Papers* the honour of being eſteem'd,

My Lord,

Your moſt humble, and moſt

obedient *Servant*

J. EVELYN.

POMONA,

Or An Appendix Concerning

FRUIT-TREES,

In relation to

CIDER:

The Making, and ſeveral ways of Ordering it.

THE PREFACE.

SAt Quercus *was the* Proverb; *and it is now time to walk out of the* Woods *into the* Fields *a little, and to conſider what Advancement may be* there *likewiſe made by the planting of* FRUIT-TREES. *For after the* Earth *is duly cultivated, and pregnant with a Crop of* Grain; *it is only by the Furniture of ſuch* Trees *as bear* Fruit, *that it becomes capable of any farther* Improvement. *If then by diſcovering how* this *may beſt be effected I can but raiſe a worthy emulation in our* Country-men; *this addition of noble* Ornament, *as well as of* Wealth *and* Pleaſure, Food *and* Wine, *may (I preſume) obtain ſome grateful admittance amongſt all Promoters of Induſtry.*

But before I proceed, I muſt, and do ingenuouſly acknowledge, that I preſent my Reader *here with very little of my* own, *ſave the pains of* collecting *and* digeſting *a few diſpers'd* Notes (*but ſuch as are to me exceedingly precious*) *which I have receiv'd*; ſome *from worthy, and moſt experienc'd* * Friends *of mine*; *and* others, *from the well-furniſh'd* Regiſters, *and* Cimelia *of the* ROYAL SOCIETY. *Eſpecially, thoſe* Aphoriſms, *and* Treatiſes *relating to the* Hiſtory *of* Cider, *which by expreſs commands they have been pleas'd to injoyn I ſhould publiſh with my* Sylva.

It is little more than an Age, *ſince* Hops (*rather a* Medical, *than* Alimental *Vegetable*) *tranſmuted our wholeſome* Ale *into* Beer; *which doubtleſs much alter'd our* Conſtitutions: That *one* Ingredient (*by ſome not unworthily ſuſpected*) *preſerving* Drink *indeed, and ſo by cuſtom made agreeable*; *yet repaying the pleaſure with tormenting Diſeaſes, and a ſhorter life, may deſervedly abate our fondneſs to it*; *eſpecially, if with* this *be conſider'd likewiſe, the* caſualties *in planting it, as ſeldom ſucceeding more than* once *in* three *years*; *yet requiring conſtant charge and culture*; *Beſides that it is none of the leaſt devourers of young* Timber.

And what if a like care, *or indeed one quarter of it, were (for the future) converted to the propagation of* Fruit-trees, *in all parts of this* Nation, *as it is already in* ſome, *for the benefit of* Cider? (*one* Shire

Ἅλις ἄρυος: in eos, qui relicto victu ſordido, ad elegantiorem lautiorémq; digrediuntur.

* Eſpecially, from the moſt excellently learned Dr. *Beale* of *Teavil* in *Somerſet-ſhire*, a Member of the Royal Society.

alone within twenty *miles compaſs, making no leſs*, yearly, *than* Fifty thouſand Hogſheads) *the* commutation *would* (*I perſwade my ſelf*) *rob us of no great Advantage*; *but preſent us with one of the moſt delicious and wholeſom* Beverages *in the World.*

It was by the plain Induſtry *of one* Harris (*a* Fruiterer *to King* Henry *the* Eighth) *that the* Fields, *and* Environs *of about thirty* Towns, *in* Kent *only, were planted with* Fruit, *to the univerſal benefit, and general Improvement of that* County *to this day*; *as by the noble example of my Lord* Scudamor, *and of ſome other publick-ſpirited* Gentlemen *in thoſe parts, all* Herefordſhire *is become, in a manner, but one intire* Orchard: *And when his* Majeſty *ſhall once be pleas'd, to command the* Planting *but of ſome* Acres, *for the beſt* Cider-fruit, *at every of his Royal* Manſions, *amongſt other of his moſt laudable* Magnificences; Noblemen, wealthy Purchaſers, *and* Citizens *will* (*doubtleſs*) *follow the* Example, *till the preference of* Cider, *wholeſom, and more natural* Drinks, *do quite vanquiſh* Hopps, *and baniſh all other* Drogues *of that nature.*

But this Improvement (*ſay ſome*) *would be generally obſtructed by the* Tenant, *and* High-ſhoon-men, *who are all for the* preſent profit; *their expectations ſeldom holding out above a year or two at moſt.*

To this 'tis anſwer'd; *That therefore ſhould the* Lord *of the* Mannour *not only encourage the* Work *by his own* Example, *and by the Applauſe of ſuch* Tenants *as can be courted to* delight *in theſe kinds of* Improvements; *but ſhould alſo oblige them by* Covenants *to* plant *certain* Proportions *of them, and to* preſerve *them being planted.*

To fortifie this profitable Deſign, *It were farther to be deſir'd, that* (*if already there be not* effectual proviſion *for it, which wants only due* execution *and* quickning) *an* Act *of* Parliament *might be procur'd for the Setting but of two or three* Trees *in every* Acre *of Land that ſhall hereafter be encloſed, under the Forfeiture of Six-pence* per *Tree, for ſome* publick *and* charitable Work, *to be levy'd on the* Defaulters. *To what an innumerable multitude would* this, *in few years, inſenſibly mount*; *affording infinite proportions, and variety of* Fruit *throughout the* Nation, *which now takes a* Potion *for a refreſhment, and drinks its very* Bread-corn!

I have ſeen a Calculation *of twenty* Fruit-trees *to every* Five-*pounds of yearly Rent*; *forty to* Ten; *ſixty to* Fifteen; *eighty to* Twenty; *and ſo according to the proportion. Had all our* Commons, *and* Waſte-lands *one* Fruit-tree *but at every* hundred foot *diſtance, planted, and fenc'd at the publick charge, for the benefit of the* Poor, (*whatever might dy and miſcarry*) *enough would eſcape able to maintain a* Stock, *which would afford them a moſt incredible relief. And the* Hedg-rows, *and the* Champion-grounds, Land-diviſions, Mounds, *and* Head-lands (*where the* Plough *not coming, 'tis ever abandon'd to* VVeeds *and* Briars) *would add yet conſiderably to theſe* Advantages, *without detriment to any man.*

As touching the Species, *if much have been ſaid to the preference of the* Red-ſtrake *before other* Cider-Apples, *this is to be added*; *That as the beſt* Vines, *of richeſt* liquor, *and greateſt* burden, *do not ſpend much in* wood *and unprofitable* branches; *ſo nor does this* Tree: *for though other* Cider *may ſeem more pleaſant* (*ſince we decline to give* Judgment *of what is unknown to us*) *we yet attain our purpoſe, if* This *ſhall appear*

beſt

beſt to reward the Planter, *of any in preſent practiſe; eſpecially, for the* generality; *becauſe it will fit the moſt* parts *which are addicted to theſe* Liquors, *but miſs of the right* kinds, *and prove the moſt ſecure from external injuries and Invaders.*

But not to refine any farther upon the rare effects of Cider, *which is above all the moſt eminent, ſoberly to exhilerate the* Spirits *of us* Hypocondriacal Iſlanders, *and by a* ſpecific quality *to chaſe away that unſociable* Spleen, *without exceſs; we muſt not forget that the very* Bloſſom *of the* Fruit *perfumes, and purifies the Ambient* Air, *which (as* Dr Beal *well obſerves in his* Hereford-ſhire Orchards) *is conceiv'd conduces ſo much to the conſtant* Health *and* Longævity, *for which that* Country *has been always celebrated, fencing their* Habitations *and ſweet* Receſſes *from* Winds, *and* Winter-*invaſions, the heat of the* Sun, *and his unſufferable darts:* And if (*ſaith he*) we may acknowledge grateful *triſles*, for that they harbour a conſtant *Aviary* of ſweet *Singers*, which are *here* retain'd without the charge of *Italian* wires: *To which I cannot but add his following option*, That if at any time we are in danger of being hindred from *Trade* in Foreign *Countries*, our *Engliſh* indignation may ſcorn to feed at their *Tables*, to drink of their *Liquors*, or otherwiſe to borrow or buy of *Them*, or of any their *Confederates*, ſo long as our *Native Soyl* does ſupply us with ſuch excellent Neceſſaries. Hereford ſh. Orch. *p.* 8.

Nor do we produce theſe Inſtances *to redeem the* Liquor *from the* ſuperſtition, prejudice, *and* opinions *of thoſe* Men *who ſo much magnifie the* juice *of the* Grape *above it: But we will here add ſome* Experiments *from undenyable ſucceſs (in ſpite of* Vintners, *and* Bauds *to mens* Palats) *were they ſufficient to convince us, and reclaim the* vitiated; *or that it were poſſible to diſpute of the* pleaſantneſs, riches, *and* præcedency *of* Drinks *and* Diets, *and ſo to provide for fit, competent, and impartial* Judges; *when by* Nature, Nation, *or* Climate (*as well as by* Cuſtom *and* Education) *we differ in thoſe Extreams.*

Moſt parts of Africa *and* Aſia *prefer* Coffee *before our Nobleſt Liquors*; India, *the* Roots *and* Plants *before our beſt Cook'd* Veniſon; *Almoſt all the World* crude water, *before our Country* Ale *and* Beer; *and we* Engliſh *being generally more for* inſipid, luſcious, *or* groſs *Diet, than for the* ſpicy, poignant, oylie, *and highly* reliſh'd, (*witneſs our univerſal hatred of* Oyls, French-wine, *or* Rheniſh *without* Sugar; *our doating on* Currans, Figgs, Plum-pottage, Pies, Pudding, Cake, *&c.*) *renders yet the difficulty more arduous. But to make good the* Experiment

About thirty years ſince one M. Taylor (*a perſon well known in* Hereford-ſhire) *challeng'd a* London-Vintner (*finding him in the* Country) *That he would produce a* Cider *which ſhould excel his beſt* Spaniſh *or* French-wine: *The* Wager *being depoſited,* He *brings in a good* Red-ſtrake *to a private Houſe: On that* Scene, *all the* Vintner *could call to be* Judges *pronounce againſt his* Wine; *Nor would any man there drink* French-wine (*without the help of* Sugar) *nor endure* Sack *for a full draught*; *and to thoſe who were not accuſtomed to either, the more racy* Canaries *were no more agreeable than* Malaga, *too luſcious for the repetition. But this* Wager *being loſt, our* Vintner *renews his* Chartel, *upon theſe expreſs terms, of Competent and Indifferent* Arbitrators: *The* Gentle-

man *agrees to the Articles*; *and* thus *again after mutual engagements it must be debated who were Competent* Judges, *and absolutely Indifferent. M.* Taylor *proposes* Three, *whereof the* odd Number *should by* Vote *determine: They must be of the fittest* Ages *too, or rather the fittest of all* Ages, *and such as were inur'd neither to* Cider *nor any* Wine; *and so it was agreed. The* Judges *convene*; viz. *A* Youth *of ten years old, a* Man *of thirty, and a* Third *of sixty*; *and by* All these *also our* Vintner *lost the Battel. But this is not enough*; *'Tis assay'd again by Nine* Judges, *the* Ternary *thrice over*; *and* there *'tis lost also: To* this *we could add another, even of the* Cider *of* Ledbury (*which is not yet the* best *of* Herefordshire) *which, when an experienced* London-Vintner *had tasted, he wish'd had been* Poyson; *for that if it were* known *where he dwelt, it would utterly undo his* Trade. *And here I will conclude*; *for I think never was fairer* Duel; *nor can more be reasonably pretended to vindicate this* Blessing *of* God, *and our Native* Liquor *from their contempt, and to engage our* Propagators *of it.*

Tot veneficiis placere cogitur, & miramur noxium esse Vinum? Plin. As 'tis most ingeniously cited by Dr *Charleton*, in his excellent Discourse of the *Adulterations of Wine*, entered into the Register of the *Royal Society*; and (with those other most useful *Pieces* subjoin'd) worthy to be published, *&c.* See *Regist Ro Society, Num.* 2. 17. *Decemb.* 28 *Jan.* 1662. *pag.* 67. 116. *&c.*

To sum up all: If Health *be more precious than* Opinion, *I wish our Admirers of* Wines, *to the prejudice of* Cider, *beheld but the* Cheat *themselves*; *the* Sophistications, Transformations, Transmutations, Adulterations, Bastardizings, Brewings, Trickings, *not to say, even* Arsenical Compassings *of this Sophisticated* God *they adore*; *and that they had as true an* Inspection *into those* Arcana Lucifera, *which the* Priests *of his* Temples (*our* Vintners *in their* Taverns) *do practise*; *and then let them drink freely that will*; Ἀριστὸν μὲν ὕδωρ: -----Give me good *Cider.*

It is noted in our Aphorisms *how much this* Beverage *was esteemed by His late* Majesty, *and* Court, *and there referr'd to all the* Gentry *of the invironing* Country, (*no strangers to the best* VVines) *when for several* Summers *in the* City *of* Hereford (*so encompass'd with store of it, and brought thither without* charge, *or extraordinary* subductions) *it was sold for* six-pence *the* VVine-Quart, *not for the* scarcity, *but the* excellency *of it: And for the* Red strake, *that it has been seen* there *hundreds of times* (*with vehement and engaged competition*) *compar'd with the* Cider *of other the most celebrated Fruit, when after a while of vapour, no man stood for any other* Liquor *in comparison.*

But it is from these Instances (*may some say*) *when the* VVorld *shall have multiplied* Cider-Trees, *that it will be time enough to give* Instructions *for the right* Pressing *and* Preserving *of the* Liquor. *The Objection is fair: But there are already more* Persons *better furnish'd with* Fruit, *than with* Directions *how to* use *it as they should*; *when in plentiful years so much* Cider *is impair'd by the ignorant* handling, *and becomes dead and sowr, that many even surfeit with the* Blessing; *it being rarely seen in most* Countries, *that any remains good, to supply the defects of another year*; *and the* Royal Society *would prevent all this hazard by this free Anticipation. And yet when all this is said, we undertake not to divine what excellent* Cider *other* soils *may bear*; *nor do we positively extol the* Red-strake *farther than the bounds and confines of* Herefordshire, *for the* Experiments *we have produc'd*; *but because there are doubtless many such* soils *sparsedly throughout this* Nation; *why should it not incite our* Industry *to its utmost* effort, *and the*

the commendable emulation of endeavouring to raiſe a yet kindlier Cider-fruit *if it be poſſible, and which may prove in it ſelf as good, and as agreeable to the* Soil *where we plant it? And certainly, much of this may fairly be expected, from the Trials, Culture, and Propagation of* Kernel-Fruits *of innumerable ſorts, and from hopeful* VVildings, *and the* peculiarity *of Grounds.*

It now remains, that I ſhould make ſome Apology *for my ſelf, to extenuate the tumultuary* Method *of the enſuing* Periods. *Indeed it was not intended for a queint or elaborate piece of* Art; *nor is it the deſign of the* Royal Society *to accumulate* Repetitions *when they can be avoided; and therefore in an* Argument *ſo much beaten as is that of dreſſing the* Seminary, Planting, *and modes of* Graffing, *it has been with Induſtry avoided; ſuch rude, and imperfect* draughts *being far better in their eſteem (and according to my Lord* Bacon's*) than ſuch as are adorn'd with more* pomp, *and oſtentous* circumſtances, *for a pretence to* Perfection. *The Time may come when the* richneſs, *and* fullneſs *of their* Collections *may worthily invite ſome more Induſtrious* Perſon *to accompliſh that* Hiſtory *of* Agriculture, *of which theſe* Pieces (*like the limbs of* Hippolitus) *are but* ſcattered parts: *And it is their greateſt ambition for the* Publique Good, *to provide ſuch* Materials, *as may ſerve to* Raiſe, *and* Beautifie *that moſt deſirable* Structure.

EVELYN.

POMONA.

CHAP. I.

Of the Seminary.

WE had not the leaſt intention to enlarge upon this *Title*, after we had well reflected on the many and accurate Directions which are already publiſhed, as well in our *French-Gardiner*, as in ſundry other *Treatiſes* of that nature, had not a moſt worthy *Member* of the *Royal Society* (to whom we have infinite Obligations) furniſhed us with ſome things very *particular* and *remarkable*, in order to the *improvement* of our *Seminaries*, *Stocks*, &c. which are indeed the very *Baſis* and *Foundation* of *Cider-Orchards*. It is from thoſe precious *papers* of *his*, and of ſome *others* (whoſe Obſervations alſo have richly contributed to this *Enterprize*) that we ſhall chiefly entertain our *Planter* in moſt of the following Periods.

Dr. Beale *of* Yeavil *in* Somerſetſhire.

Whoſoever expects from the *kernel* of a rich or peculiar *Apple* or *Pear* to raiſe *Fruit* of the *ſame kind*, is likely to find many obſtructions and diſappointments: For the *Wilding*, (*Crab* or *Pear*) *Pomus Sylveſtris*, being at the beſt the natural product of the ſoundeſt *kernel* in the firmeſt land, and therefore the guſt of the *Fruit* more ſtrongly auſtere, fierce, and ſharp, and alſo the *Fruit* leſs and more woody; and the pleaſanter or plumper and larger *Apple* being the effect of ſome inteneration, which inclines to a kind of rebatement of the natural ſtrength of the Tree; the beſt choice of *kernels* for *Stocks* indefinitely, (and on which we may graff what we pleaſe) ſhould be from the ſoundeſt *Wilding*. For,

A *kernel* taken from any *graffed-Apple*, as *Pepin*, *Pear-main*, &c. does moſt naturally propend to the wildneſs of the *Stock* on which 'twas inſerted, as being the natural mother of the *kernel*, which is the very heart of the *Apple*; and alſo from a more deep and ſecret *Reaſon*, to be hereafter unfolded.

Apples and *Pears* requiring rather a vulgar and ordinary *Field-land*, than a rich *Garden-mould*, (as has been often ſeen to ſucceed by frequent Obſervations) it has been found that *kernels* ſowed in a very high *compoſt*, and rank earth, have produced (*large* indeed) but *inſipid* Fruit, haſtily rotting on the Trees, before all the parts of it were mature. *Vid. Aphor.* 33.

And ſometimes when they ſeemed in outward *figure* to bear the ſhape of graffed *Apples*, from whence the *kernels* came, yet the guſt did utterly deceive, wanting that vivacity and pungent agreeableneſs.

If

If the *kernels* of natural *Apples* (or of *ungraffed Trees*) ſhould produce the ſame, or ſome other variety of *Apples*, (as ſometimes it ſucceeds) yet would this care be ſeldom *operæ pretium*, and at beſt but a work of *Chance*, the diſappointment falling out ſo often through the fickleneſs of the *Soil*: Or admit *that* the moſt proper and conſtant, yet would the very *dews* and *rain*, by various and mutable Seaſons, and even by the *Air* it ſelf, (which operates beyond vulgar perception, in the very changes as well of the *mould*, as of the *ſeeds* and *fruit*) create almoſt infinite alterations: And the choice having been in all places (apparently for ſome *thouſands* of years) by propagating the moſt delicate of *Fruits* by the *Graffs*, 'tis almoſt a deſperate task to attempt the raiſing of the *like*, or *better* Fruit from the rudiments of the *Kernel*.

Yet ſince our deſign of relieving the want of *Wine*, by a *Succedaneum* of *Cider*, (as lately improv'd) is a kind of *Modern Invention*, We may encourage and commend their patience and diligence who endeavour to raiſe ſeveral kinds of *Wildings* for the tryal of that excellent Liquor; eſpecially ſince by late experience we have found, that *Wildings* are the more proper *Cider-Fruits*; ſome of them growing more ſpeedily, bearing ſooner, more conſtantly, and in greater abundance in leaner Land, much fuller of *juice*, and that more maſculine, and of a more *Winy* vigour.

Thus the famous *Red-ſtrake* of *Hereford-ſhire* is a pure *Wilding*, and within the memory of ſome now living ſirnamed the *Scudamores Crab*, and then not much known ſave in the *Neighbourhood*, &c. Yet now it would be difficult to ſhew that *Red-ſtrake* which grew from a *kernel* in that whole *Tract*, all being ſince become *graffed* Trees. Thus 'tis alſo believed, That the *Bromsbury Crab* (which carries the fame in ſome parts of *Gloceſter-ſhire*) and many of the White *Muſts*, and Green *Muſts*, are originally *Savages*; as now in *Somerſet-ſhire* they have a generous *Cider* made of promiſcuous *kernels*, or *ungraffed* Trees, which fills their confidence that no other *Cider* does exceed it; and 'tis indeed ſtrong, and of a generous vigour.

Nor dare we poſitively deny, but that even the beſt of our *Table-fruit* came alſo originally from the *kernel*: For it is truly noted by my L. *Bacon*, *That the* Fruit *does generally obey the* Graff, *and yields very little to the* Stock; yet ſome little it does.

The famous *Bezy de Hery*, an excellent Musky *Pear*, was brought into the beſt *Orchards* of *France* from a *Foreſt* in *Bretaïny*, where it grew *wild*, and was but of late taken notice of.

But now to the deep *Reaſon* we lately threatned: We have by an Experiment found ſome neer affinity between the *Kernel* of the *Apple* and the *heart* or interiour of the *Stock*: *For I ſaw* (ſays Dr. *Beale*) *an old rotten* Kernel-Tree *bearing a delicate* Summer-fruit, *yielding ſtore of ſmooth* Cider, (*'tis call'd the* French-Kernel-Tree, *and is alſo a* Dwarf, *as is the* Red-ſtrake;) *and examining divers* Kernels, *many years ſucceſſively, of that hollow and decayed Tree, I found them always very ſmall of growth, and empty, meer skins of* Kernels, *not unlike to the emaſculated* Scrotum *of an* Eunuch; *another*

ther younger Tree, iſſuing from the ſounder part of a Root *of the ſame old Tree, had full and entire* Kernels.

And from ſome ſuch Obſervation might the production of *Berberies*, &c. without *Stones*, be happily attempted; an *Inſtrument* fitted to take out the *marrow* or *pith* of the *Branches*, (as the ſame Dr *Beale* perform'd it;) for from the *numerical* Buſh of that *Fruit* he found *ſome* Branches produce *Berberies* that had no ſtones, *others* which had; and in ſearching for the *cauſe* of the *effect*, perceived, that the pith or heart was taken from the *radicat*, or main Branches; as the other was full of pith, and conſequently the fruit in perfection; of all which (he writes me word) he made ſeveral tryals on other fruit, but left the place before he could ſee the event. But he adds;

Theſe many years (*almoſt* twenty) *I have yearly tri'd* Kernels in *Beds of clean* Earth, Pots, *and* Pans, *and by the very* leaves (*as they appear'd in firſt ſpringing for one moneth*) *I could diſcern how far my* Eſſays *had* civiliz'd *'em*: *The* Wilder *had ſhorter, ſtiffer, brown, or fox-colour'd leaves*, *The more* ingenuous *had more tender, more ſpreading leaves; and approaching the lighter verdure of the* Berbery *leaf when it firſt appears.* He adds,

Some Apples *are call'd* Roſe-Apples, Roſemary-Apples, Gilly-flower-Apples, Orange-Apples, *with ſeveral other adjuncts, denominating them, from what* Reaſon *I know not.* But if we intended to try ſuch *infuſions* upon the *Kernels* (as ſhould endeavour to alter their *kinds*) we ſhould not approve of the bedabbling them with ſuch infuſions, (for over-*moiſture* would rather enervate than ſtrengthen them) but rather prepare the *Earth* the *year before*, with ſuch *inſuccations*, and then hinder it from producing any *Weeds*, till ready for the Kernels, and then in dewy times; and more frequently when our *Climate* were ſurcharg'd with *rain*, cover the *Beds* and *Pots* with the ſmall leaves of *Roſemary*, *Gillyflowers*, or other oderiferous *Bloſſomes*, and repeat it often, to the end the *dews* may *meteorize*, and *emit* their finer *ſpirits*, &c. Or if any ſhall pleaſe to be ſo liberal of their *Salts* and *Calcinations* of peculiar *Virtues* (though poſſibly the *Eſſay* may indanger their *ſeeds*) yet the mixture of ſuch *Salts* finely reduc'd and ſtrewed diſcreetly on their *Beds*, may be a more probable means, than thoſe *Liquid Infuſions* which have hitherto been ſo confidently boaſted. For thus alſo we are in this *Age* of ours provided of more vigorous *Ingredients* for *trials* than were known to the *Ancients*. Finally,

From what has been deduc'd from the *Wilding* of ſeveral parts, it may manifeſtly appear, how much more *congeneal* ſome *ſoil* is than other, to yield the beſt *Cider-fruit* from the *Kernel*; and the *hazzle* ground, or quicker mould, much better than the more obſtinate *clay* or ranker earth: In hot *Gravelly-Grounds*, where almoſt no ſort of *Fruit* will grow, *Pears* will thrive; and a Friend of mine aſſures me, of *One* that clave a *Rock*, and filling it with a little good Earth, planted a *Pear-tree* therein, which proſper'd exceedingly: I add this, that none may go hence without encouragement.

CHAP. II.

Of Stocks.

THe former thus eſtabliſh'd, after all *humours* and *varieties* have been ſufficiently wearied, we ſhall find the *Wilding* to be the hardieſt and moſt proper *Stock* for the moſt delicate *Fruit*: This confirm'd by *Varro*, lib. 1. cap. 40. *In quamcunq; arborem inſeras*, &c. and 'tis with reaſon: However they do in *Herefordſhire*, both in practice, and opinion, limit this *Rule*; and to preſerve the guſt of any delicate *Apple* (as of the *Pear-main*, *Quince-Apple*, *Stockin*, &c.) rather graff upon a *Gennet-Moyle* or *Cydoddin-Stock*, (as there call'd) than a *Crab-ſtock*; but then indeed they conclude the Tree laſts not ſo long; and 'tis obſerv'd, That *Apples* are better taſted from a clean, light land, &c. than from ſtiffer clay, or the more pinguid and luxurious ſoil, whence we may expect ſome aſſiſtance from the civility of the *Stock*, which is a kind of prepared *Soil*, or foundation to the *Graff*; even as our very *Tranſplantations* into better ground is likewiſe a kind of *Graffing*.

Thus in like manner our Maſter *Varro*, *loco citato* concerning *Pears*; *Si in Pyrum Sylvaticam*, &c. The *Wild-ſtock* does enliven the dull and phlegmatic *Apple*, and the Stock of a *Gennet-Moyle* ſweeten and improve an *Apple* that ſeems *over-tart*, as the *Pome-roy*, or ſome *Greening*, &c. or may rather ſeem to abate at leaſt ſome *Apple* over-tart and ſevere.

Your *Crab-ſtock* would be planted about *October*, at thirty two Foot diſtance, and not *graffed* till the third *Spring* after, or at leaſt not before the *ſecond*.

But if your deſign be for *Orchard* only, and where they are to abide, an *interval* of ſixteen Foot ſhall ſuffice for the *Dwarfiſh* kind, or in the Grounds where the *Red-ſtrake*, or other *Fruit-trees* are of ſmall bulk, provided the ground be yearly turn'd up with the *Spade*, and the diſtance quadrupled where the *Plough* has priviledge; this being the moſt expedite for ſuch as have no *Nurſery* ground.

CHAP. III.

Of Graffs *and* Inſitions.

MAke choice of your *Graffs* from a conſtant and well-bearing Branch.

And as the *Stock* hath a more verdant rind, and is capable to yield more plenty of *juice*, ſo let the *Graff* have more *Eyes* or *Buds*: Ordinarily three or four *Eyes* are ſufficient to give iſſue to the *Sap*; but as well in *Apples*, and *Pears*, as in *Vines*, thoſe *Graffs* or *Cions* are preferr'd in which the *buds* are not too far aſunder, or diſtant from the foot thereof: and ſuch a number of *buds* uſually determining the length of the *Graff*, there may divers *Cions* be made of one *Branch*, where you cannot procure plenty of them for ſeverals.

As to the ſucceſs of *graffing* the main point is, to joyn the inward *rind* of the *Cion* to the inward rind of the *Stock*, ſo that the *ſap* of the *One*, may *there* meet with the ſap of the *Other*, and theſe parts ſhould be joyn'd cloſely, but not too forceably; that being the beſt and moſt infallible way, by which moſt of the quick and juicy parts are mutually united, eſpecially towards the bottom.

If the *Stock* be ſo big as to endanger the pinching of your *Graff*, when the *wedge* is drawn out of the *cleft*, let the inner ſide of the *Graff*, which is within the wood of the *Stock*, be left the thicker, that ſo the *woody* part of the *Cion* may bear the ſtreſs, and the *ſappy* part be preſerved from bruiſing. Some by an happy-hand, do with good ſucceſs *Graff* without cleaving the *Stock* at all, only by *Inciſions* in the *Rind*, as the *Induſtrious* Mr. *Auſtin* teaches us: But ſince this is not for every *Ruſtic* hand, nor ſeems to fortifie ſo ſtrongly againſt impetuous *Winds*, before the Union be *ſecure*, there had need be ſome extraordinary *defence*.

Chooſe the ſtreighteſt and ſmootheſt part of the *Stock* for the place where you intend to *graff*: If the *Stock* be all knotty (which ſome eſteem no impediment) or crooked, rectifie it with the fitteſt poſture of the *Graff*.

For a *Graff* covet not a *Cions* too ſlender; for the *Sun* and *Wind* will ſooner enforce it to wither: Yet are we to diſtinguiſh, that for *Inoculation*, we take the *Bud* from a ſprig of the laſt years ſhoot; and moſt allow that the *Cions* ſhould alſo have ſome of the former with it, that it may be the ſtronger to *graff*, and abide to be put cloſe into the *Stock*, which is thought to advance it in bearing.

In *Hereford-ſhire* they do frequently chooſe a *Graff* of ſeveral years growth; and for the *graffing* of ſuch large *Stocks* as are taken out of the *Woods* or *Nurſeries*, and fitted into rows for *Orchards*, they chooſe not the *Graffs* ſo ſmall as in other Countries they re-

quire them; which has, it ſeems, occaſion'd ſome complaint from them that underſtand not the Reaſon of the firſt branch of this Note. Once for all, the ſtumpy *Graff* will be found much ſuperiour to the ſlender one, and make a much nobler and larger Shoot. This upon experience.

Graff your *Cions* on that ſide of the *Stock* where it may receive the leaſt hurt from the *South-weſt* Wind, it being the moſt common, and moſt violent that blows in *Summer*; ſo as the *wind* may blow *it* to the *Stock*, not from it: And when the *Zephyres* of the *Spring* are ſtirring, chooſe that *Seaſon* before all others for this work.

Some there are who talk of removing the *Stock* about *Chriſtmas*, and then alſo *graff* it; which there be that glory they can ſucceſſfully do even by the fire ſide, and ſo not be forc'd to expect a two or three years rooting of the *Stock*; But in this *Adventure* 'tis adviſeable to plunge the *Graff* three or four inches deep in the *Stock*. Laſtly,

Be careful that the *Rain* get not into the *clefts* of your young graffed *Stocks*: Yet it has been noted, That many old Trees (quite decay'd with an inward hollowneſs) have born as full burdens, and conſtantly, as the very ſoundeſt, and the Fruit found to be more delicate than uſually the ſame kind from a perfect and more entire Stock.

Except ſome former caſe requires it, leave not your *Graffs* above four, five, or (at moſt) ſix inches of length above the *Stock*; for by the length it draws more feebly, and is more expos'd to the ſhocks of the *Wind*, or hurt by the *Birds*; and you ſhall frequently perceive the ſummities and tops of ſuch young *Graffs* to be mortified and die.

The *Genet-moyle* is commonly propagated by cutting off the *Branch* a little below a *Burr-knot*, and ſetting it without any more Ceremony; but if they be alſo *graffed* firſt as they grow on the *Tree*, and when they have *covered* the *head*, cut off below the *Burr*, and ſet, it is far better: In this ſeparation cut a little beneath the *Burr*, and *peel* off, or *prick* the *Bark*, almoſt to the *knot*: Thus alſo if the *Branch* have more *knots* than *one*, you may *graff*, and *cut off* yearly, till within half a foot of the very *ſtem*, which you may *graff* likewiſe, and ſo let ſtand.

Now for encouragement in tranſporting *Graffs* at great diſtance, we find that with little care (their tops uncut and unbruis'd) they will hold good, and may ſupport the tranſportation by *Sea* or *Land* from *October* or *November* to the very end of *March*: *See Sir H. Plat's Offers*, Paragr. 75. To which may be added, That if the *Graff* receives no hurt by lying in the *Stock* expos'd to all rain, dews, and ſeverities of *Winter* froſts from *December* to *Spring*, (as has been experimentally noted); then (by a ſtronger preſumption) in oyled, or rather waxen Leather, it may undoubtedly eſcape. Some preſcribe, That the *ends* ſhall be ſtuck in a *Turnip*: and many excellent *Graffers* (*Gentlemen* ſome of very good credit) have aſſured us, That the *Graffs* which ſeemed withered, and fit

to

to be caſt away, have proved the beſt when tri'd. Thus in honeſt *Barnaby Googes* noble *Heresbachius* you will find it commended to gather your *Cions* in the *wane* of the *Moon*, at leaſt ten days before you *graff* them; and *Conſtantine* gives this reaſon for it, That the *Graff* a little withered, and thirſty, may be the better received of the *Stock*: I know ſome who keep them in *Earth*, from the end of *October*, till the *Spring*, and will hardly uſe them before. There are alſo other inducements for this practice, as *Simon Harwood*, *pag.* 4. has ſhew'd us; but none beyond our own *experience*, who have known *Graffs* gathered in *December* thrive and do perfectly well.

The beſt expedient to *convey* Graffs is to ſtick the *cut-ends* in *Clay*, envelop'd with a *clout* to preſerve it from falling off; and to wrap the other part of the Twigs in dry *Hay* or *ſtraw-bands*, which will ſecure them both from the Winds, Galling, and other injuries in Tranſportation: Nay, I have known them ſent many *hundred Miles* from *beyond* the *Seas* accommodated to an ordinary Letter, and though ſomewhat ſhort, and with very few *Buds*, yet with excellent ſucceſs; and if this courſe were more univerſally conſider'd, we might be furniſh'd with many great *Curioſities* with little difficulty or charge.

CHAP. IV.

Of Variety *and* Improvements.

IF any man would have *variety* of unexpected and unknown *Apples* and *Pears*, for the improvement of *Cider*, or *Palate-fruit*, there is more hope from *Kernels* rais'd in the *Nurſery* (as has already been directed) than from ſuch tryals of *graffings* as we have yet ſeen in preſent uſe.

But if we would recover the patience, and the ſedulity of the *Antient* (of which ſome brief account will follow) or liſten to ſome unuſual Propoſals, then may we undertake for ſome variety by *Inſitions*.

To delude none with Promiſes, we do much rather recommend the diligence of enquiring from all *Countries* the beſt *Graffs* of ſuch *Fruits* as are already found excellent for the purpoſe we deſign: As from the *Turgovians* for that Pear of which Dr. *Pell* gives ſo good and weighty informations; and of which I had preſented me ſome *Graffs*, together with a taſt of the moſt ſuperlative *Perry* the *World* certainly produces; both which were brought near 800 Miles, without ſuffering the leaſt diminution of Excellency, by my Worthy *Friend* Mr. *Hake* a *Member* of the *R. Society*, in the year 1666, and taſting as high, and as rich as ever to the *preſent* year I am writing this *Paragraph*.

But as ſome ſorts are to be enquired after for the *Palate* and the *Table*,

Table, ſo 'tis now our main buſineſs to ſearch after ſuch as are excellent for their *Liquor*, either as more *pleaſant*, more *winy*, or more *laſting*; of which ſort the *Bosbury bare-land*-Pear excels. The *Red ſtrake*, *Bromebury-Crab*, and that other much celebrated *Wilding* call'd the *Oaken-pin*, as the beſt for *Cider*; though for ſufficient reaſons we do yet prefer the *Red-ſtrake*, to oblige the *emulation* of other *Countries*, 'till they find out a *Fruit* which ſhall excell it, and which we do moſt heartily wiſh.

But to purſue the diligence of the *Antients*, we direct the eye to a general expedient for all kinde of *varieties* imaginable, and which we hold far better than to preſent the World with a *Liſt* of the particulars either known, or experimented: For who indeed but a *Fool* will dare to tell *Wonders* in this ſevere *Age*, and upon an *Argument* which is ſo environ'd with *Impoſture* in moſt *Writers* old or new? Much leſs pretend to *Experiments* which may fail to ſucceed by default of an unhappy *occaſion*, when the *concluſion* muſt be *Penes Authorem ſit fides!*

And truly men receive no ſmall diſcouragement from the ugly affronts of *Clowns*, and leſs cultivated perſons, who laugh and ſcorn at every thing which is above their underſtanding: For example; *I knew a man* (writes Dr. *Beale* to me) *and he a moſt diligent* Planter *and* Graffer, *who for thirty or fourty years made innumerable* Eſſays *to produce ſome* change *of an* Apple *by Graffing: It ſeems he was ambitious to leave his* Name *on ſuch a* Fruit, *if* he *could have obtained it*; *but always fail'd*; *for he perpetually made his* Trials *upon* Crab-ſtocks, *or ſuch* (*at leaſt*) *as did not greatly differ from the* kind; *and he ever found that the* Graff *would* prædominate. And how infinitely ſuch Men having loſt their own aims, will deſpiſe better *Advice*, we leave to obſervation.

However, let us add, That where nothing is more facile than to raiſe new kinds of *Apples* (*in infinitum*) from *Kernels*: Yet in that *Apple-Country* (ſo much addicted to *Orchards*) we could never encounter more than *two* or *three* perſons that did believe it: But in other places we meet with many that, on the other ſide, repute *Wildings*, or (as they call them) *Kernel-fruit*, at all adventure, and without choice, to be the very beſt of *Cider-fruit*, and to make the moſt noble Liquor. So much does the common judgment differ in ſeveral *Countries*, though at no conſiderable diſtance, even in *matters* of viſible *Fact*, and *epidemical* experience.

It has been ſoberly affirmed, that by *graffing* any *White Apple* upon an *Elm*, it changes the *Apple*, and particularly to a *red* colour: I have a Direction where we may be eye-witneſſes of the proof; whatever the Truth of it be, we are not over-haſtily to erect *Hercules's Pillars*; but rather to encourage the *Experiment*.

To gratifie yet the *Ingenious*, inſtruct others, and emancipate us all from theſe *baſtinado Clowns*, we are furniſh'd with many *Arguments* and proofs to aſſure a good ſucceſs, at leaſt for *variety* and *change*, if not for infinite *choice*: Two or three antient *References* being duly præmiſ'd; namely, Firſt,

1. That

1. That 'tis in vain to expect change of *Apples* from *Graffing* upon differing *Stocks* of *Crabs* or *Apples*.

2. In vain also are we to look for a kind Tree from a very much differing *Stock*; as an altered *Pear* to grow kindly on a *Crab* or *Apple-ſtock*, *& contra*. There go about indeed ſome *jugglings*, but we diſdain to name them.

It is one thing to find the kindeſt *Stock* for the Improvement of any Fruit; as the *Crab-ſtock* for the delicate Apple, the *Wild* or *Black-Cherry-Stock*, for the *graffs* of the faireſt *Cherries*; the largeſt *Vine*, (whoſe root makes beſt ſhift for relief) to accept the *Graff* of the more delicate *Vine*; the *White Pear-Plum Stock*, for the *Abricot*, &c. And another thing it is to ſeek the *Stock* which begets the wonder, variety, and that ſame tranſcendent and particular excellency we inquire after: For this muſt be at more remote diſtance; and we offer from the *Ancients* to ſhew, how it may be at any diſtance whatſoever: But the whole expedient ſeems to be hinted by Sir *H. Plat*, *pag.* 72. where he affirms, that *If two Trees grow together, that be apt to be graffed one into another, then let one branch into another, workmanly joyning Sap to Sap.* This our *Gardiners* call *Graffing by Approach*, and is explicated at large by *Columella*.

But in this expreſs *Rule* he is too narrow for our purpoſe, and far ſhort of old experience; as we find in *Parag.* 63. where he affirms, *We may not graff a contrary Fruit thereon.* Againſt *this* we urge; That any contrary *Fruit* may be adventured, and any Fruit upon any fruitleſs *Stock* growing in propinquity in the ſame *Nurſery*; as it is not only affirm'd, but ſeriouſly undertaken, and experimentally proved by the ſober *Columella*, in ſeveral of his Treatiſes; Turn to the *eleventh* Chapter of his *fifth* Book, (*Stephens* Edition:) *Sed cum antiqui negaverint poſſe omne genus ſurculorum in omnem Arborem inſeri, & illam quaſi finitionem, qua nos paulò ante uſi ſumus, veluti quandam legem ſanxerint, eos tantùm ſurculos poſſe coaleſcere, qui ſint cortice, ac libro, & fructu conſimiles iis arboribus quibus inſeruntur, exiſtimavimus errorem hujus opinionis diſcutiendum, tradendámque poſteris rationem, qua poſſit omne genus ſurculi omni generi Arboris inſeri.* And the example follows in a *Graff* of an *Olive* into a *Fig-ſtock* by *Approach* (as we call it,) which he alſo repeats in the twenty ſeventh *Chapter* of his Book *De Arboribus*, without altering a ſyllable. But poſſibly in this *check* at the *Ancient* he might aim at old *Varro*, whom we find threatning no leſs than *Thunderbolts* and *Blaſts* to thoſe who ſhould attempt theſe ſtrange *Marriages*, and did not ſort the *Graff* with the *Tree*; conſult *lib.* 1. *cap.* 40. And yet you may ſee this *Art* aſſum'd by *Columella* for his own invention (1500 years ſince) to be no news to *Varro* 200 years older; where he goes on, *Eſt altera ſpecies ex arbore in arborem inſerendi nuper animadverſa in arboribus propinquis*, &c. Though here again we may queſtion our Maſters *nuper animadverſa* too; ſince before he was born *Cato* relates it as uſual to *Graff* Vines in the manner by them preſcribed, *cap.* 41. *Tertia inſitio eſt: Terebra vitem quam inſeres*, &c. Which by the way makes us admire how the witty *Walchius* in his Diſcourſe *De*

vitibus

vitibus fructuariis, pag. 265. could recount the *graffing* of *Vines* amongſt the wonders of *Modern Inventions:*

But it ſeems *Varro* and his *Contemporaries* did extend the practice beyond *Cato*; and *Columella* proceeded further than *Varro*, even to all ſorts of Trees, however differing in nature, quality, bark, or ſeaſon: And then *Palladius* aſſumes the reſult, and gives us the particulars of the ſucceſs in his *Poem*, *De Inſitionibus*. And to theſe four as in chief (no phantaſtical or counterfeit perſons) we refer the Induſtrious:

But be pleas'd to take this note alſo: As ſoon as your *Graff* hath attained to a *ſecond*, or at fartheſt a *third* years growth, take it off the *Stock*, and then graff it upon a *Stock* of a more *natural* kind: For in our own *Trials* we have found a *graff* proſper the ſecond year exceeding well; yet the third the whole growth at once blaſted quite to the very *Stock*, as if *Varro*'s Augurs had ſaid the word.

To this add, the making uſe of ſuch *Stocks* as in this *Experiment* may contribute ſome ſpecial aid to ſeveral kinds of humane *Infirmities*: As ſuppoſe the *Birch* Tree for the *Stone*, the *Elm* for *Fevers*, &c. For 'tis evident, that by ſuch *Inſitions*, the *Branch* may convert the *Sap* of the *Root* even of another *ſpecies* into its own nature, and alter all its *properties*; though in *ſome* they *dominere*, as the *Branch* of the *Apple* in the *Rhamnus*, or *Mezerea*, acquires a *Purgative* quality. And by theſe means why may not the *Fruit* by effectual *Marriages* be rendred *Cordial*, *Aſtringent*, *Purgative*, *Sudorific*, *Soporiferous*, and even *Deliterious* and Mortal: But this we only hint.

Moreover, To *graff* rather the *Wilding*, or *Crab*, than the *Pepin*, becauſe the *Wilding* is the more natural; and *Nature* does more delight in *progreſs*, than to be *Retrograde* and go backwards.

I ſhould alſo expect far more advance from a more *pungent ſap*, than from *Inſipid*; as generally we ſee the beſt and vigorous *juices* to ſalute our *Palats* with a more agreeable *piquancy* and tartneſs; for ſo we find the relliſh of the *Stocking-Apple*, *Golden Pepin*, *Pearmain*, *Eliot*, *Harvy*, and all (both *Ruſſetings* and *Greenings*) to be more poignant than of others.

And here we note from *Palladius*, That the *Ancients* had the ſucceſs which we all, and particularly Sir *H. Plat*, does ſo frequently deny, as in the particular of *graffing* the *Apple* on the *Pear*, *& contra*. Let us hear him *de Pomo*.

The *Graffed-Crab* its buſhy Head does rear,
Much *Meliorating* the inſerted *Pear*:
Its ſelf to leave its *Wildneſs* does invite,
And in a *Nobler iſſue* to delight.

Inſita proceris pergit concreſcere ramis,
Et ſociam mutat malus amica Pyrum:

Séque

Séque feros ſylvis hortatur linquere mores,
Et partu gaudet nobiliore frui.
Pallad. de Inſitionib. *lib.* 14.

But poſſibly *Palladius* aſſum'd this *Poetical* expreſſion, upon preſumption, that no man in his days durſt degrade the moſt excellent *Quince* to ſupport the *Cyon* of another *Fruit*, which then muſt be of leſs eſteem, but we by our *luxury* have found the ſucceſs.

And we have good argument to believe; That *Virgil*, and *Columella*, in ſeveral of their wonderful Relations of theſe kinds of mixture, (which but for the prolixity we might now recite) did not ſo far affect *Wonders* as to deſert the truth.

You may alſo obſerve, That as well the *French Gardiner*, and our *Modern Planters*, have found the ſame benefit from the *Stock* of the *Quince*, as old *Palladius* did, it ſeems, acknowledge; yet (as he conceiv'd) more hoſpitable ſtill with its own *kindred*, and that

Though the *Quince-ſtock* admit all other *Fruit*,
Its *Cyon* with no other *ſtock* will ſuit:
Scorning the *Bark* of Forreign Trees, does know
Such lovely *Fruit* on no mean *ſtem* can grow:
But the *Quince-Graff*, to the *Quince-ſtock* is joyn'd,
Contented only to *improve* its kind.

Cum præſtet cunctis ſe fulva cydonia pomis,
Alterius nullo creditur hoſpitio.
Roboris externi librum aſpernata ſuperbit,
Scit tantum nullo creſcere poſſe decus:
Sed propriis pandens cognata cubilia ramis,
Stat, contenta ſuum nobilitare bonum.
Pallad. de *Malo Cydonio.*

Laſtly, We did by unexpected chance find the facility of *graffing* the very youngeſt *Stocks*, even of one years growth, by the *Root*: At a ſecond removal of the *Stocks* (being then of two years growth) we obſerved ſome *Roots* ſo faſt cloſed together into one, as not to be divorced: Hereupon we concluded, If caſualty, or negligence, chance of ſpade, or oppreſſion of neighbourhood did this, by *Art* it might be done more effectually, and poſſibly to ſome deſirable purpoſe; for that then the *ſtock* was more apt to receive a maſtering *Impreſſion*; and any *Garden* Plant whatſoever might by this *proceſs* interchange and mingle their *Roots*. But this can extend no farther than the *Stock* may prevail with the *Graff*.

And thus we have preſented our diligent *Ciderift* with what Obſervations and Arguments of Encouragement, grounded on frequent *Experience*, we have received from our moſt ingenious *Correſpondents*, eſpecially the Learned and truly Candid Dr *Beale*, in whoſe *Perſon* we have ſo long entertain'd you: and to theſe we could add ſundry others, were it not now time (whiles we diſcourſe

of *poſſibilities*) to conclude with ſomething *certain*, and to ſpeak of what we have.

For the kinds then of *Cider-Apples* in being; *Gloceſter-ſhire* affects the *Bromsbury Crab*; It affords a ſmart, winy *Liquor*, and is peculiarly hardy, but not ſo proper for a cold and late-bearing *Climate*, it being not *ripe* in *hot Land* till the end of *Autumn*, nor fit to be ground for *Cider* till *Chriſtmas*, lying ſo long in heaps and preparation.

It is in the ſame *Shire* that they likewiſe much eſteem of the *white* and *red Muſt-Apple*, the ſweeteſt as well as ſowreſt *Pepin*, and the *Harvy-Apple*, which (being boyl'd) ſome prefer to the very beſt of all *Ciders*; though from any experience we have yet ſeen, we cannot recommend it, and it will want more particular and infallible *Directions* before we can be reconciled to the *Adventure*, which we have obſerved ſo frequently to miſcarry.

But about *London*, and the more Southern *Tracts*, the *Pepin*, and eſpecially the *Golden*, is eſteemed for the making of the moſt delicious of that *Liquor*, moſt wholeſom, and moſt reſtorative; and indeed it may (in my poor judgment) challenge thoſe *perfections* with very good reaſon.

By others the *Pearmain* alone is thought to come in competition with the beſt; but, ſay they, the *Cider* is for the moſt part found of the weakeſt, unleſs encourag'd with ſome agreeable *Pepin* to inſpirit it; whereas *this* is to be taken according to the conſtitution of the *Fruit*; for even *Pepins* do differ as much from *Pepins* in Taſt and Liquor, as the *Kind*, and the *Soil* diſpoſe them; nay, though of the ſame *Species*; ſo as the *Cider* of the *Pearmain* (though likewiſe very different) does not ſeldom exceed it in that briskneſs which others attribute to the *Pepin*, which is for the moſt part more ſmooth and leſs *poinant*: I conceive a good way of extracting the *Spirits* of theſe *Fruits*, might prove a likely *Criterion* to ground our judgments on in all theſe niceties; whilſt by the way, we may note, that of all *Apples*, that bear one general Name, the *Pepin* ſeems the moſt to differ; and the *Cider* from the genuine *Cider-Fruit*, keeps neareſt to the ſame ſtrength and reliſh.

Some commend the *Fox-Whelp*; and the *Gennet-Moyle* was once preferr'd to the very *Red-ſtrake*, and before the *Bromsbury-Crab*; but upon more mature conſideration, the very *Criticks* themſelves now *Recant*, as being too effeminate and ſoft for a *judicious* Palate.

The *Red-ſtrake* then amongſt theſe accurate *Taſters* hath obtained the abſolute præeminence of all other *Cider-fruit*, eſpecially in *Hereford-ſhire*, as being the richeſt and moſt *vinous* Liquor, and now with the more earneſtneſs commended to our practice, for its celerity in becoming an *Orchard*, being ordinarily as full of *Fruit* at *ten* years growth as other Trees are at *twenty*; the *Pepin* or *Pearmain* at thirty: And laſtly, from that no contemptible quality, That though the ſmiles of it intice even on the *Tree*, as being indeed better than moſt other *Table-fruits* whilſt hanging, yet it needs

See Aph. 42, 45, 37.

needs no *Priapus* for Protector, ſince (as beautiful as 'tis) it has no ſuch temptation to the *Taſt*, 'till it be either *baked*, or converted into *Cider*. The ſame may be affirmed alſo of the *Broms-bery-Crab*, *Bareland-Pear*, and many other *Wildings*, who are no leſs at their *Self-defence*; yet the *Gennet-Moyle* at due *maturity*, has both a gentle, and agreeable reliſh; their unagreeableneſs to the *Palate* (as elſe-where noted) proceeding only from the ſeparation the *juice* makes from the *Pulp*, which even *Children* do remedy by *contuſing* them on their ſharpned Elbows; which (if throughly weigh'd) ſeems to *diſpute*, if not *overthrow* ſome *Hypotheſes* of *Fermentation*.

In ſum, The *Red-ſtrake* will at three years *graffing* give you fair hopes, and laſt almoſt an hundred years; if from ſundry mens *Experience* of more than 60 years, we may divine, and that it agree with the *Soyl*. And the *Gennet-Moyles* haſten to an *Orchard* for *Cider* without trouble of *Art* or *Graffing*: But note, That this *Tree* is very apt to contract a *bur-knot* near its Trunk, where it begins to divide; and being cut off under that *boſs*, commonly grows (if ſo ſet) and becomes ſpeedily a Tree, except it encounter an extraordinary dry *Summer* the firſt year to give it check. And though the knack of *graffing* be ſo obvious, yet this more appearing facility does ſo pleaſe the lazy *Clowns*, that in ſome places they neither have nor deſire any other *Orchards*; and how this humour prevails you may perceive by the haſty progreſs of our *Kentiſh Codlin* in moſt parts of *England*. But this haſty growth and maturity of the *Tree* is by another *Inſtance* confirm'd to us from that worthy *Gent.* Mr. *Blount* of *Orleton*, who writes me word, that ſome of the rejected Spray, or Prunings of the *Gennet-Moyle*, taken by chance to *rice* a Plot of *Peaſe* (though ſtuck into the Earth but at *April*) put forth root, grew, bloſſom'd, and bore *Apples* the ſame year.

See C. Taylor's Diſcourſe of Cider.

But to advance again our *Red-ſtrake*, even above the *Pepin*, and the reſt (beſides the celerity of the improvement and conſtant burthen) conſider we the moſt incredible product, ſince we may expect from each *Apple* more than double the quantity; ſo as in the ſame *Orchard*, under the ſame *culture*, thirty *Red-ſtrake* Trees ſhall at ten years *graffing* yield more *Cider* than a *hundred* of thoſe *Pepins*, and ſurmount them in proportion during their period at leaſt ſixty or ſeventy years: So that granting the *Cider* of the *Golden-Pepin* ſhould excel, (which with ſome is precarious) yet 'tis in no wiſe proper for a *Cider-Orchard*, according to our general deſign, not by half ſo *ſoon bearing*, nor ſo *conſtantly*, nor in that *quantity*, nor *fulneſs* or *ſecurity*.

Concerning *Perry*, the *Horſe-Pear* and *Bare-land-Pear* are reputed of the beſt, as bearing almoſt their weight of ſpriteful and *vinous* Liquor. The Experienced prefer the *tawny* or *ruddy* ſort, Aph. 43. as the colour of all other moſt proper for *Perry*: They will grow Aph. 34. in *common-fields*, *gravelly*, *wild*, and *ſtony* ground, to that largeneſs as *one* only *Tree* has been uſually known to make three or four *Hogſheads*: That of *Bosbury*, and ſome others, are ſo tart and

harſh that there is nothing more ſafe from plunder, when even a *Swine* will not take them in his mouth. But thus likewiſe would the abundance preſerve theſe Fruits, as we ſee it does in *Normandy*.

CHAP. V.

Of the Place *and* Order.

WE do ſeriouſly prefer a very wild *Orchard*, as mainly intended for the publick utility, and to our *purpoſe* of obliging the *People*, as with a ſpeedy *Plantation* yielding ſtore for *Cider*: Upon this it is that we do ſo frequently inculcate, how well they thrive upon *Arable*, whilſt the continuing it ſo accelerates the growth in almoſt half the time: And if the *Arable* can be ſo levell'd (as commonly we ſee it for *Barly*-land) then without detriment it may aſſume the Ornament of *Cyrus*, and flouriſh in the *Quincunx*.

If it be *ſhallow* Land, or muſt be rais'd with high *Ridges*, then 'tis neceſſary to have more regard of planting on the *tops* of thoſe eminencies, and to excuſe the unavoydable breach of the *decuſſis*, as my Lord *Verulam* excuſeth the defect of our humane *phanſies* in the *Conſtellations*, which obey the *Omnipotent* order rather than ours: Add to this the rigour of the *Royal Society*, which approves more of *plainneſs* and *uſefulneſs*, than of *niceneſs* and *curioſity*; whiles many putting themſelves to the vaſt charge of levelling their grounds, oftentimes make them but the worſe; ſince where the places are full of gaſtly inequalities, there may be planted ſome ſorts of *Cider fruit*, which is apt by the great burden to be preſs'd down to the ground, and there (whiles it hides *Irregularities*) to bear much better, and abundantly beyond belief; for ſo have been ſeen many ſuch recumbent *Pear-trees* bear each of them *two*, *three*, yea, even to *ſix* or more *Hogſheads* yearly.

And for this *Cider*, whiles we prefer ſome ſorts of *Wildings* which do not tempt the *palate* of a *Thief*, by the caution we ſhall not provoke any man to repent his charge from the neceſſity of richer and more reſerv'd *Encloſures*; Though we have frequently ſeen divers *Orchards* ſucceſsfully planted on very poor *Arable*, and even in ſtony *Gleab*, *gravel* and *clay*, and that pretty high, on the ſides and declivities of *Hills*, where it only bears very ſhort graſs, like to the moſt ordinary *Common*, not worth the charge of *Tillage*: And yet even there the *Tenants* and *Conſiners* ſometimes encloſe it for the *Fruit*, and find their reward, though not equally to ſuch *Orchards* as are planted on better ground, and in the Vallies. Hence we ſuggeſt, That if there be no *Statute* for it, 'twere to be wiſhed there were a *Law* which ſhould allow *endeavours* of this nature out of the *Common-field*, to encloſe for theſe *Encouragements*, ſince

ſince both the *Publick* and the *Poor* (whatever the clamour is) are advantaged by ſuch *Encloſures*, as *Tuſſer* in his old Rhimes, and all indifferent obſervers apprehend with good reaſon.

True indeed it is, That all Land is not fit for *Orcharding*, ſo as even where to form juſt *Incloſures* being either too *ſhallow* and *dry*, or too *wet* and *ſterving*: *But this* (ſaith the judicious Mr *Buckland*) *we may aver, That there are few* Pariſhes, *or* Hamlets *in* England *where there are not ſome fat and deep* Headlands *capable of* Rows *of* Trees; *and that* (*as hath been ſaid*) *the raiſed* Banks *of all* Incloſures *generally by the advantage of the depth, fatneſs, and health of their Mould, yield ready opportunity for planting*; (*yea, and in many* Countrys *multitudes of* Crab-ſtocks *fit to be* graffed;) *in which latter* (ſaith he) *I have frequently obſerved very goodly Fruit-bearing Trees, when in the ſame ſoil* Trees *in* Orchards *have been poor and worth nothing.* To conclude,

If the ſoil be very bad and unkind, any other *Fruit* (which it may more freely yield without requiring much depth, and leſs *Sun*) may be planted inſtead of *Apples*.

CHAP. VI.

Of Tranſplanting, *and* Diſtance.

THe moſt proper ſeaſon for *Tranſplanting* is before the hard Froſts of *Winter* ſurprize you, and that is a competent while before *Chriſtmas*: And the main point is, to ſee that the *Roots* be larger than the *Head*; and the more ways that extends, the better and firmer.

If the *Stock* ſeems able to ſtand on its own three or four legs (as we may call 'em,) and then after ſettlement ſome ſtones be heaped or laid about it, as it were gently wedging it faſt, and ſafe from Winds (which *ſtones* may after the ſecond or third year be removed) it will ſalve from the main danger: For if the *Roots* be much ſhaken the firſt *Spring*, it will hardly recover it.

You may tranſplant a *Fruit-Tree* almoſt at any tolerable *ſeaſon* of the *Year*, eſpecially if you apprehend it may be ſpent before you have finiſh'd your work, having many to remove: Thus, let your *Trees* be taken up about *Allhallontide*, (or as ſoon as the *leaf* begins to fall); then having trimm'd and quickned the *Roots*, ſet them in a *Pit*, forty, fifty, or a hundred together, yet ſo as they may be covered with mould, and kept very freſh: By the *Spring* they will be found well cured of their *wounds*, and ſo ready to ſtrike *root* and put forth, that being *Tranſplanted* where they are to ſtand, they will take ſuddenly, and ſeldom fail; whereas being thus cut at *Spring* they recover with greater hazard.

The very *Roots* of *Trees* planted in the ground, and buried within a quarter of an Inch, or little more, of the level of the *Bed*, will ſprout, and grow to be very good *Stocks*. This and the other

other being Experiments of our own, we thought convenient to mention.

By the oft removal of a *Wild-ſtock*, cutting the ends of the *Roots*, and diſ-branching ſomewhat of the *Head* at every *change* of *place*, it will greatly abate of its natural *wildneſs*, and in time bring forth more *civil* and *ingennous* Fruit: Thus *Gillyflowers* do (by oft removals, and at *full-Moon* eſpecially) increaſe and multiply the leaves.

Plant not too *deep*; for the *over-turf* is always richer than the *next* Mould. How material it is to keep the *coaſt* or ſide of the *Stock*, as well in *Fruit-trees* as in *Foreſt*, we have ſufficiently diſcuſs'd; nor is the Negative to be prov'd.

See *Aph.* 35. For the *diſtance* in *Fields*, they may be ſet from *thirty two* to *ſixty* Foot, ſo as not to hinder the *Plough*, nor the benefit of manure and ſoil; but in hedg-rows as much nearer as you pleaſe, Sun and Air conſidered.

CHAP. VII.

Of the Fencing.

SEeing a *Cider-Orchard* is but a wild Plantation, beſt in *Arable* well enclos'd from *Beaſts*, and yet better on the Tops, Ridges, and natural Inequalities, (though with ſome loſs of Order, as we ſhew'd,) one of the greateſt diſcouragements is the *preſerving* of our *Trees* being plan'd, the raiſing of them ſo familiar.

We have in our *Sylva* treated in particular of this, as of one of the moſt material *obſtacles*; wherein yet we did purpoſely omit one *Expedient*, which came then to our hands from the very Induſtrious Mr. *Buckland* to the Learned Dr. *Beal:* You ſhall have it in his own words.

This of Fencing *ſingle* Trees *uſeth to be done by* Rails *at great charges*; *or by* Hedges *and* Buſhes, *which every other year muſt be renew'd, and the* materials *not to be had in all places neither. I therefore prefer and commend to you the enſuing form of* Planting *and* Fencing, *which is more cheap and eaſie, and which hath other* Advantages *in it, and not commonly known. I never ſaw it but* once, *and that imperfectly perform'd; but have practis'd it* my ſelf *with* ſucceſs: *Take it thus.*

Set your Tree *on the* Green-ſwarth, *or five or ſix* inches *under it if the* ſoil *be very healthy*; *if* moiſt *or* weeping, *half a foot above it*; *then cut a* Trench *round that* Tree, *two foot or more in the* cleare *from it: Lay a rank of the* Turfs, *with the* graſs *outward, upon the* inner *ſide of the* Trench *towards your* Plant, *and then a* ſecond *rank upon the former, and ſo a* third, *and* fourth, *all orderly plac'd,* (as *in a* Fortification) *and leaning towards the* Tree, *after the form of a* Pyramide, *or larger* Hop-hill: *Always as you place a row of* Turfs

in

in compass, you must fill up the inner *part of the* Circle *with the loose Earth of the second* spit *which you dig out of your* Trench, *and which is to be two foot and half wide, or more, as you desire to mount the* hillock, *which by this means you will have rais'd about your* Plant *near three foot in heighth. At the* point *it needs not be above two foot or eighteen inches diametre, where you may leave the* Earth *in form of a* Dish, *to convey the* Rain *towards the* body *of the Tree; and upon the top of this* hillock *prick up five or six small* Briars *or* Thorns, *binding them lightly to the body of the* Plant, *and you have finish'd the work.*

The commodities *of this kind of* Planting *are,*

First, *Neither* Swine, *nor* Sheep, *nor any other sort of* Cattel *can annoy your* Trees.

Secondly, *You may adventure to set the smaller* Plants, *being thus raised, and secur'd from the reach of* Cattel.

Thirdly, *Your* Trees *fasten in the* Hillock *against violence of* Winds, *without* Stakes *to fret and* canker *them.*

Fourthly, *If the* soil *be* wet, *it is hereby made* healthy.

Fifthly, *If very* dry, *the* hillock *defends from the outward* heat.

Sixthly, *It prevents the* Couch-grass, *which for the* first *years insensibly robs most plants in sandy grounds apt to* graze. *And,*

Lastly, *The* grazing bank *will recompence the nigardly* Farmer *for the waste of his* Ditch, *which otherwise he will sorely bethink.*

In the second *or* third *year (by what time your* Roots *spread) the* Trench, *if the* Ground *be moist, or* Seasons *wet, will be neer fill'd up again by the treading of* Cattel; *for it need not be cleansed; but then you must renew your* Thorns: *Yet if the* Planter *be curious, I should advise a casting of some small quantity of* rich Mould *into the bottom of the* Trench *the second year, which may improve the growth, and invite the* Roots *to spread.*

In this manner of Planting, *where the* soil *is not rich, the exact* Planter *should add a little quantity to each Root of Earth from a frequented* High-way, *or* Yard *where* Cattel *are kept; One* Load *will suffice for six or seven* Trees; *this being much more proper than* rotted soil *or* loose Earth; *the fat Mould best agreeing with the* Apple-Tree.

The broader and deeper your Ditch *is, the higher will be your* Bank, *and the securer your* Fence; *but then you must add some good Earth in the second year, as before.*

I must subjoyn, That only Trees *of an* upright growth *be thus planted in* open grounds; *because spreading of low growing* Trees *will be still within reach of* Cattel *as they encrease: Nor have I met with any inconvenience in this kind of* Transplanting (*which is applicable to all sorts of* Trees) *but that the* Mole *and the* Ant *may find ready entertainment the first year, and sometime impairs a weak rooted* Plant; *otherwise it rarely miscarries. In sum,*

This manner of Fencing *is soon executed by an indifferent* Workman, *who will easily set and guard* six Trees *in a* Winter *day.* Thus far Mr. *Buckland:* To which we shall only add, That those which are planted in the *Hedg rows* need none of these defences; for (I

am

am told) in *Hereford-ſhire* in the Plantations of their *Quick-ſets*, or any other, all men did ſo *ſuperſtitiouſly* place a *Crab-ſtock* at every *twenty foot* diſtance, as if they had been under ſome rigorous *Statute* requiring it; and I am of Opinion, that 'twere better to be content with *Fruit* in the bordering *Mounds*, than to be at all this trouble to raiſe *Tumps*, or temporary banks in the midſt of an *Incloſure*; or if *Pears* will thrive in the Plain of the *Ortyard*, as we frequently ſee them, (where neither *Apple* or other *Fruit* could in appearance be expected) then *Crabs*, which may be raiſed on the *Mounds*, will kindly mix the *Liquor* into very good *Beverage*.

CHAP. VIII.

Of Pruning *and* Uſe *of the* Fruit-Trees.

THe *Branches* are to be *lopp'd* in proportion to the bruiſes of the *Roots*, whoſe *fibres* elſe ſhould only be quickned, not altogether cut off nor intangled: For the *Top*, let a little of each arm be lopp'd in *Cider-fruit* only; but for the *Pears*, cut two or three *buds* deep at the ſummities of their aſpiring *Branches*, juſt above the *eye* ſlanting; this will keep them from over-haſty mounting, reduce them into *ſhape*, and accelerate their *bearing*.

To this we add again out of Dr. *Beals Herefordſhire Orchards*, pag. 23. *In a* graffed plant *every* Bough *ſhould be lopped at the very tops, in* Apples *and* Pears, *as in* Cherries *and* Plums, if *Tranſplanted* without violation of *Roots*, which only indeed renders it leſs neceſſary.

In moſt kinds of natural Plants *the* Boughs *ſhould not at all be* lopped, *but ſome taken off cloſe to the* Trunk, *that the Root at firſt* Tranſplantation *be not engaged to maintain too many* Suckers, this to be underſtood, though of ſuch as grow naturally from the *Kernel*, or the *Bur-knot*; eſpecially if *removed* after they are well rooted. *And this muſt be done with ſuch diſcretion, that the* Top-branches *be not too cloſe together; for the natural* Plant *is apt to grow* ſpiry, *and thereby fails of fruitfulneſs. Therefore let the reſerved* Branches *be divided at a convenient roundneſs.*

The Branches *of thoſe we call natural Plants (for uſually the* Graffed *generally fail) that are cut off, may be ſet, and will grow, though ſlowly.*

If the Top *prove* ſpiry, *or the fruit* unkind, *then the due remedy muſt be in re-*graffing. See *Chap.* xxviij. *in Sylva.*

Beſides the Perrys, dri'd *and* preſerv'd *Fruit, uſeful is the* Pear-Tree *(and beſt the moſt barren, or* Pig-taile, *as they call it, which is the Wild* Pyraſter) *for its excellent colour'd* Timber, hard *and* levigable *(ſeldom or not ordinarily* worm-eaten) *eſpecially for* Stools,

Stocks, Tables, Chairs, Piſtol-Stocks, Inſtrument-Maker, Cabinets, *and very many works of the* Joyner, (*who can make it eaſily to counterfeit* Ebony) *and* Sculptor, *either for* flat, *or* emboſs'd-*Works, and to* Engrave *upon, becauſe the* Grain *intercepts not the* Tool. *And ſo is likewiſe both the* Black-Cherry (*eſpecially for the* Necks *of* Muſical-Inſtruments) *and the* Plum-Tree.

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IF *ſome of the following* Diſcourſes *ſeem leſs conſtant, or (upon occaſion) repugnant to one another, they are to be conſider'd as relating only to the ſeveral* guſts, *and guizes of* Perſons *and* Countries, *and not to be looked upon as recommended* Secrets, *much leſs* impos'd, *farther than upon* Tryal *they may prove grateful to the* Publick, *and the different inclinations of thoſe who affect theſe* Drinks: *nor in reaſon ought any to decry what is propos'd for the* univerſal Benefit; *ſince it coſts them nothing but their civility to ſo many obliging* Perſons.

GENERAL ADVERTISEMENTS CONCERNING CIDER:

By Dr *BEALE.*

1. HE that would treat exactly of *Cider* and *Perry*, must lay his foundation so deep as to begin with the *Soyl*: For as no Culture or Graffs will exalt the *French Wines* to compare with the *Wines* of *Greece*, *Canaries*, and *Montefiasco*; so neither will the *Cider* of *Bromyard* and *Ledbury* equal that of *Ham lacy*, and *Kings-Capell*, in the same small County of *Hereford*.

2. Yet the choice of the *Graff* or *Fruit* hath so much of prevalency, that the *Red-strake-Cider* will every where excel common *Cider*, as the *Grape* of *Frontignac*, *Canary*, or *Baccharach*, excels the common *French Grape*; at least, till by time and traduction it degenerateth.

3. I cannot divine what *Soil* or what *Fruit* would yield the best *Cider*; or, how excellent *Cider* or *Perry* might be if all *Soils* in common and all *Fruit* were tried; but for *thirty years* I have tried all sorts of *Cider* in *Hereford-shire*, and for three years I have tried the best *Cider* in *Somerset-shire*; and for some years I have had the best *Cider* of *Kent* and *Essex* at my call; yet hitherto I have always found the *Cider* of *Hereford shire* the best, and so adjudged by all good *Palates*. But I shall rejoice to be better informed, and truly from all other *Countries*; and do both wish and hope, that in a short time, we shall every where be *rich* in many *Improvements*.

4. I cannot undertake to particularize all kind of *Soil*, no more than to compute how many *syllables* may be drawn from the *Alphabet*; the number of Alphabetical *Elements* being better known than the *Ingredients* and *Particles* of *Soil*, as *Chalk*, *Clay*, *Gravel*, *Sand*, *Marle*, (the tenaciousness, colour, and innumerable other qualities, shewing endless diversities;) and the Fruit of *Crabs*, *Apples*, and *Pears*, being as various as of *Grapes*, *Figs*, and *Plums*.

5. Yet in gross, this I note; That as *Bacchus amat colles*, and a light ground, so our best *Cider* comes from the hot *Rie-Lands*: In fat *Wheat-Land* it is more sluggish; and in white, stiff *Clay-Land* (as in *Woollhope* in *Hereford-shire*) the common *Cider* retains a thick

thick whey-colour, and not good: Only ſuch as riſeth there (by the diligence or ſome *Art* of the *Inhabitants*) is bright and clear, and ſo lively, that they are apt to challenge the beſt.

6. Some *Cider* mixeth kindly with *Water* in the *Cider-mill*, and will hold out a good ſmall *Wine*, and leſs inflaming, all the following *Summer*. Some *Cider* (as of *Long-hope*, a kind of ſour *Wood-Land* Country of *Herefordſhire*) will not bear any mixture of *Water*, but ſoon decay, and turn more harſh and ſour: And thus we noted in *France*, ſome courſe *Wines* ſtuck like paint in the *Graſs*, unwilling to incorporate with the Water: *Vin d' Aye*, and other delicate Wines, did ſpread themſelves more freely, as *gold* is more *ductile* than baſer *metals*.

7. Some would, for a fit, extol the *Cider* of *Pearmains*, ſome of *Pepins*; (and of *Pepins* I have found a congenial *Liquor*, leſs afflicting *ſplenetick* perſons, as in mine own experience I conceived:) And Sir *Henry Lingen* once extolled the *Cider* of *Eleots* (as richly bedewing the Glaſs like the beſt *Canaries*;) and full Hogſheads of the *Stocking-Apple* have been tried amongſt us, but diſappointing our expectation, though perhaps by evil ordering: Yet Mr. *Gritten* highly boaſted a Mixture of *Stocking-Apples* and *May-Pears*, tried (as I take it) by himſelf: After many years trial of thoſe and many other kinds, the *Red-ſtrake* carried the common fame, and from moſt of thoſe reduced admirers. The *Gennet-Moyl Cider* was indeed more acceptable to tender *Palats*; and it will require *Cuſtom* and *Judgment* to underſtand the preferrency of the *Red-ſtrake*, whoſe mordicant ſweetneſs moſt agreeably gives the farewel, endearing the relliſh to all flagrant *Palats*; which both obliges, whets, and ſharpens the *ſtomach* with its maſculine and *winy* vigour; and many thouſands extol it for exceeding the ordinary *French-Wine*: But grant it ſhould not be ſo ſtrong as *Wine*; let me ask how many ſober perſons abroad addict themſelves to meer *Wine*? Then compare *this* with diluted *Wine*, as uſually for temperate men, and then let the trial be made, whether the *Pepin-Cider* or *Red-ſtrake* will retain the *winy* vigour in greater proportion of *Water*. Add to this, That they commonly mingle *Water* in the *Preſs* with *Apples* (a good quantity) whiles they grinde the *Apple*; and the *Water* thus mixed, at that time, does ſo pleaſingly incorporate in the grinding, fermentation, and maturity of Veſſeling, that 'tis quite another and far more pleaſant thing than if ſo much or half ſo much *Water* were mingled in the *Cup* at the drinking time; as *Salt* on the *Trencher* will not give *Beef*, *Pork*, or *Neats-Tongue*, half that ſame relliſh which duly *powder'd* and timely ſeaſon'd.

8. I did once prefer the *Gennet-moyl Cider*, but had only the *Ladies* on my ſide, as gentler for their ſugary *palats*, and for one or two ſober draughts; but I ſaw cauſe to recant, and to confeſs the *Red-ſtrake* to warm and whet the *Stomach*, either for *meat* or more *drink*.

9. The right *Cider-fruit* is far more *ſucculent*, and the *Liquor* more eaſily divides from the *pulpe* of the *Apple*, than in beſt *Table-fruit*,

fruit, in which the juice and the pulp ſeem friendly to diſſolve together on the tongues end.

10. The Liquor of beſt *Cider-fruit* in the *Apple*, in beſt ſeaſon of ripeneſs, is more brisk and ſmart than that which proves duller *Cider*: And generally the fierceſt *Pears*, and a kind of tamer *Crabs*, (and ſuch was the *Red-ſtrake* called in my memory) makes the more winy *Cider*.

11. *Palladius* denieth *Perry* to bear the heat of *Summer*; but there is a *Pear* in *Bosbury*, and that Neighbourhood, which yields the *Liquor* richer the *ſecond* year than the *firſt*, and ſo by my experience very much amended the *third* year: They talk much higher; but that's beyond my account.

12. As *Cider* is for ſome time a ſluggard, ſo by like care it may be retained to keep the *Memorials* of many *Conſuls*; and theſe ſmoaky bottles are the *nappy Wine*. My Lord *Scudamore* ſeldome fails of three or four years; and he is nobly liberal to offer the Trial.

13. As *red Apples*, ſo *red Pears* (and amongſt them the red *Horſ-pear* next to the *Bosbury*) have held out beſt for the ſtomach and durance: But *Pears* do leſs gratifie the ſtomach than *Apples*.

14. The ſeaſon of *grinding* theſe *harſh Pears* is after a full maturity, not till they have dropt from the Tree, and there lain under the Tree, or in heaps, a *week* or thereabouts.

15. And ſo of *Cider-Apples*, as of *Grapes*, they require full *maturity*, which is beſt known by their natural *fragrancy*; and then alſo, as ripe *Grapes* require a few mellowing days, ſo do all *Apples*, as about a week or little more, ſo they be not bruiſed, which ſoon turns to rottenneſs; and better ſound from the Tree than rotten from the heap; though yet the juice of *Apples* and *Pears* (yea, of *Cherrys* or *Grapes*) is not altogether deſtroy'd, or quite putrified, as ſoon as the *Pulp* ſeems to be *corrupted*; neither haply needs there ſuch curioſity, to cull and pick them ſo accurately, as ſome preſcribe, though doubtleſs the cleaner, and leſs contaminated, the better.

16. That due maurity, and ſome reſt on the heap, does make the *Liquor* taſte rather of *Apples* than *winy*, hath no more truth, (if the *Cider* be kept to fit age) than that very *old Cheeſe* doth taſte of a *Poſſet*.

17. The harſher the *wild-fruit* is, the longer it muſt lye on heaps; for of the ſame fruit, ſuddenly ground, I have taſted good *Ver-juice*; being on heaps till near *Chriſtmas*, all *good-fellows* called it *Rheniſh-wine*.

18. The *Grinding* is ſomewhat conſiderable, rather too much than too little; here I ſaw a *Mill* in *Somerſetſhire* which grinds half a *Hogſhead* at a *griſt*, and ſo much the better ground for the frequent rolling.

19.* Soon after *grinding* it ſhould be *preſt*, and immediately be put into the *Veſſel*, that it may ferment before the *ſpirits* be diſſipated; and then alſo in fermenting time the *Vent-hole* ſhould not be

* *See for* This, *excellent* directions *in* Mr. Newburghs *preſerving of the* ſurface; C. Taylors *Veſſel, and* Dr Smiths *cloſing of it up.*

be ſo wide as to allow a prodigal waſte of the *ſpirits*; and as ſoon as the ferment begins to allay, the *Veſſels* ſhould be *filled* of the *ſame*, and well ſtopped.

20. Of late 'tis much commended, that before it be *preſt* the *Liquor* and *Muſt* ſhould for four and twenty hours ferment together in a *Vat* for that purpoſe, covered, as *Ale* or *Beer* in the *Teſt-vat*, and then tunned up. This is ſaid to enrich the liquor, and to give it ſomewhat of the *tincture* of ſome *red Apples*, as I have ſeen, and very well approved.

21. As *Sulphur* hath ſome uſe in *Wines*, ſo ſome do lay *Brimſtone* on a *ragge*, and by a *wire* let it down into the *Cider-Veſſel* and there *fire* it; and when the Veſſel is full of the *ſmoak*, the liquor ſpeedily poured in ferments the better. I cannot condemn this, for *Sulphur* is more kind to the *Lungs* than *Cider*, and the impurity will be diſcharged in the ferment.

22. *Apples* over-long hoarded before *grinding* will for a long time hold the liquor *thick*; and this liquor will be both pleaſant, and as I think, wholeſome; and we ſee ſome rich *Wines* of the later *Vintage*, and from *Greece*, retain a like craſſitude, and they are both *meat* and *drink*.

23. I have ſeen thick harſh *Cider* the ſecond *Summer* become clear and very richly pleaſant; but I never ſaw clear *acid Cider* recover.

24. *Wheat* or *Leven* is good and kind in *Cider*, as in *Beer*; *Juniper-berries* agree well and friendly for *Coughs*, weak Lungs, and the aged, but not at firſt for every Palate: The moſt infallible and undiſcerned improver, is *Muſtard* a *Pint* to each *Hogſhead*, bruiſed, as for ſauce, with a mixture of the ſame *Cider*, and applied as ſoon as the Veſſel is to be cloſed after fermenting.

25. *Bottleing* is the next *improver*, and proper for *Cider*; ſome put two or three *Raiſins* into every *Bottle*, which is to ſeek aid from the Vine. Here in *Somerſetſhire* I have ſeen as much as a *Wal nut* of *Sugar*, not without cauſe, uſed for this Country *Cider*.

26. *Crabs* do not haſten the decay of *Perry*, but preſerve it, as *Salt* preſerves *fleſh*. But *Pears* and *Crabs* being of a thouſand kinds require more *Aphoriſms*; this only I would *Note*, that *Land* which refuſes *Apples*, is generally civil to *Pears*, and *Crabs* mingled with them, make a rich and wholſome *Cider*, and has ſometimes challenged even the beſt *Red-ſtrake*.

27. Neither *Wheat*, *Leven*, *Sulphur*, nor *Muſtard*, are uſed but by very few; and therefore are not neceſſary to make *Cider* laſt well, for two, three, or four years.

28. The time of drawing *Cider* into *Bottles* is beſt in *March*, it being then clarified by the *Winter*, and free from the heat of the *Sun*.

29. In drawing, the *beſt* is neereſt the *heart* or middle of the Veſſel, as the *Yelk* in the *Egge*.

30. *Red-ſtrakes* are of divers kinds, but the name is in *Herefordſhire* appropriated to one kind, which is fair and large, of a high *purple* colour, the ſmell *Aromatical*, the *Tree* a very *ſhrub*,

ſoon

ſoon bearing a full burden, and ſeldom or never failing till it decays, which is much ſooner than other *Apple-trees*. 'Tis lately ſpread all over *Hereford-ſhire*; and he that computes ſpeedy return, and true *Wine*, will think of no other *Cider-Apple*, till a better be found.

31. I ſaid the *Red ſtrake* is a ſmall *ſhrub*, 'tis of ſmall growth where the *Cider* proves richeſt, for ought we have yet ſeen in *Herefordſhire*, *viz.* in light quick land; and if the *land* be very dry, jejune and ſhallow, *that* and other *Cider fruit* (eſpecially the *Gennet-moyle*) will ſuſpend the ſtore of fruit alternatively every other year; except ſome *Blaſts* or ſurpriſing *Froſts* in the *Spring* alter that *Method*; for two bad years ſeldom come together, very hardly three.

32. In good ſoil, I mean of *common field* (for fat land is not beſt for *Cider*-fruit, but common *arable*) I have ſeen the Trees of good growth, almoſt equalling other *Cider-trees*, the *Apple* larger and ſeldom failing of a good *burthen*: thus in the *Vales* of *Wheat-lands*, in ſtrong *Glebe* or *Clay*, where the *Cider* is not ſo much extolled: but ſtill *Sack* is *Sack*, and *Canary* differs from *Claret*; ſo does the *Red-ſtrake Cider* of the *Vale* excell any other *Cider* of the foreſaid ſoil, ſuch as is already celebrated for its kindneſs to good *Cider*.

33. Yet this diſtinction of *Soil* requires much *experience*, and great heed, if we inſiſt upon accurate directions; for as *Lauremberg* ſaith, *in pingni ſolo non ſeruntur omnia rectè, neq; in macro nihil.* And for *Gardens*, *Flowers*, and *Orchards*, I would chuſe many times ſuch lands as do not pleaſe the *Husbandman*, either for *Wheat* or ſweet *Paſture*, which are his chief aims; and thus *Lauremberg*, *In Arida & tenui terra fælicius proveniunt Ruta, Allium, Petroſelinum, Crocus, Hyſſopus, Capparis, Lupini, Satureia, Thymus*; *Arbores quoq; tenue & macilentum ſolum amant*; *itemq; frutices pleriq; Hujuſmodi arbores ſunt, Pomus, Pyrus, Ceraſus, Prunus, Perſica, Cotonea, Morus, Juglans, Corylus, Staphylodendrum, Meſpilus, Ornus, Caſtanea, &c. Frutices, ſcil. Vitis, Berberis, Geniſta, Juniperus, Oxyacantha, Periclymenum, Roſa, Ribeſium, Uva, Spina, Vaccinia, &c.*

34. But here alſo we muſt diſtinguiſh, that *Pears* will bear in a very *ſtony*, *hungry*, *gravelly-land*, ſuch as *Apples* will not bear in; and I have ſeen *Pears* bear in a tough binding hungry *Clay*, when *Apples* could not ſo well bear it (as the ſmooth rinds of the *Pear-trees*, and the *Moſſie* and *cankered rinds* of the *Apple trees* did prove) the *root* of a *Pear-tree* being it ſeems more able to pierce a ſtony and ſtiff ground. And *Cherries*, *Mulberries* and *Plums* can rejoyce in a richer ſoil, though by the ſmalneſs of the *Roots*, the ſhallower ſoil will ſuffice them. And the *Quinces* require a deeper ground, and will bear with ſome degrees of hungry land, if they be ſupplied with a due meaſure of *ſucculency*, and neighbouring moiſture; and the other *ſhrubs*, according to the ſmalneſs of their *roots*, do generally bear a thinner land. I have ſeen a *ſoil* ſo much too rank for *Apples* and *Plums*, that all their fruits from year to year were

always *worm-eaten*, till their lives were forfeited to the fire.

35. To take up from these *Curiosities*, the most useful result to our purpose; we have always found these *Orchards* to grow best, last longest, and bear most, which are frequently tilled for *Barley*, *Wheat*, or other *Corn*, and kept (by *Culture* and seasonable *rest*) in due strength to bear a full *crop*. And therefore, whereas the *Red-strake* might otherwise without much injury be planted at *fifteen* or *twenty* foot *distance*, and the best *distance* for other *Cider-fruit* hath heretofore been reputed *thirty*, or *two* and *thirty* foot; very good husbands do now allow in their largest *Inclosures* (as of 20, 40 or 100 *Acres*) *fifty* or *sixty* foot distance, that the Trees may not much hinder the *Plow*, and yet receive the benefit of *Compost*; and a *Horse-teem* well governed will (without any damage of danger) *plow* close to the *Trees*.

36. In such soil as is here required, namely of good *Tillage*, an *Orchard* of *graffed Red-strakes* will be of good growth, and good burthen, within *ten* or *twelve years*, and branch out with good store to begin an encouragement at three years *graffing*; and (except the land be very unkind) will not yield to any decay within *sixty* or *eighty years*, which is a mans age.

37. In some *sheets* I rendred many Reasons against Mr. *Austin* of *Oxford*, why we should prefer a peculiar *Cider fruit*, which in *Herefordshire* are generally called *Musts*; (so we name both the *Apple* and the *Liquor*, and *Pulpe* as mingled together in the contusion) as from the Latine *Mustum*. *White-Musts* of divers kinds, *Red-cheek'd* and *Red-strak'd Musts* of several kinds, *Green-Musts* called also *Green-fillet*, and *Blew-spotted*: Why, I say, we should prefer them for *Cider*, before *Table-fruit*, as *Pepins*, *Pearmains*, &c. And I do still insist on them: 1. The Liquor of these *Cider-fruits* and of many kinds of austere fruit, which are no better than a sort of full succulent *Crabs*, is more sprightful, brisk and *winy*. For Essay, I sent up many *bottles* to *London*, that did me no discredit. Secondly, One bushel of the *Cider-fruit* yields twice or thrice as much liquor. Thirdly, The *Tree* grows more in three or four years than the other in ten years, as I oft times remarked. Fourthly, The *Tree* bears far greater store, and doth more generally escape *Blasts* and *Frosts* of the *Spring*. I might add, that some of these, and especially such *Pears* as yield the best *Perry*, will best escape the hand of the *Thief*, and may be trusted in the open field.

38. By the *first*, *second* and *fourth* of these Reasons, I must exclude the *Gennet-Moyle* from a *right Cider fruit*, it being dry and very apt to take *frosty blasts*; yet it is no *Table-fruit*, but properly a baking fruit, as the ruddy colour from the *Oven* shews.

39. I said that the right *Cider-fruit* generally called *Musts*, and deserving the *Latine* name *Mustum*, is of divers *kinds*; and I have need to note more expressly that there is a *Red-strak'd Must* (as I have often seen) but not generally known, that is quite differing from the famous *Red-strake*, being much less, somewhat oblong and like some of the white *Musts* in shape, and full of a very good *winy* liquor. I could willingly name the *persons* and *place* where the

the distinct kinds are best known: it was first shewed me by *John Nash* of *Asperton* in *Herefordshire*; and for some years they did in some places distinguish a *Red-strake*, as yielding a richer *Red-strak'd Cider* of a more *fulvous* or *ruddy* colour; but this difference, as far as I could find, is but a choice of a better *insolated* or ruddy fruit of the best kind, as taken from the *South part* of the *Tree*, or from a *soil* that renders them richer. But my Lord *Scudamore*'s is safely of the best sort; and M. *Whingate* of the *Grange* in *Dimoc*, and some of *King's-capel*, do best know these and other differences, *Straked-Must*, *right Red-strake*, *Red-Redstrake*, &c.

40. The greenish *Must*, (formerly called in the *Language* of the *Country*, the *Green-fillet*) when the *Liquor* is of a kindly ripeness, retains a *greeness* equal to the *Rhenish-glass*; which I note for them that conceive no *Cider* to be fit for use till it be of the *colour* of *old Sack*.

41. To direct a little more *caution*, for enquiry of the right *Red-strake*, I should give notice that some *Moneths* ago, M. *Philips* of *Mountague* in *Somersetshire*, shewed me a very fair large *Red-strake Apple*, that by smell and sight seemed to me and to another of *Herefordshire* then with me to be the best *Red strake*; but when we did cut it, and taste it, we both denied it to be *right* (the other with much more confidence than my self) but M. *Philips* making *Cider* of it, this week invited me to it, assuring that already it equals or resembles *High-country-wines*. It had not such plenty of juice as our *Red strakes* with us, and it had more of the pleasantness of *Table-fruit*, which might be occasioned, for ought I know, by the purer and quicker soil. This *Apple* is here call'd *Meriot-Ysnot*, and great store of them are at *Meriot*, a *Village* not far distant: Possibly, this *Meriot* may prove to be the *Red-strake* of *Somerset shire*, when they shall please to try it apart with equal diligence and constancy as they do in *Hereford-shire*: This *fruit* is of a very lovely *hue*, and by some conceived to be of Affinity to the *Red-Jersey Apple*, which is reported to *tinge* so deeply: In truth, there can hardly be a deeper *Purple*, than is our right *Herefordshire Red-strake*, having a few *streaks* towards the *Eye*, of a *dark* colour, or *Orange-tawny* intermingled: But, 'tis no wonder if an *Apple* should change its *Name* in travelling so far beyond the *Severn*, when even in this *Country*, most sorts of *Apples*, and especially, *Cider-fruit*, loseth the Name in the next *Village*.

42. I may now ask why we should talk of other *Cider-fruit* or *Perry*, if the best *Red strake* have all the aforesaid pre-eminencies of richer and more *winy* liquor, by half sooner an *Orchard*, more constantly bearing, *&c.* An *Orchard* of *Red-strakes* is commonly as full of fruit at *ten* years, as other *Cider-fruit* at *twenty* years, or as the *Pepin* and *Pearmain* at *thirty* or thereabout.

43. To this may be Answered, that all *soils* bear not *Apples*, and to some *soils* other *Apples* may be more kind, and if we be driven to *Perry*, much we may say both in behalf of the *Perry*, and of the *Pear*; of the *fruit*, and of the *Tree*; It is the goodlier Tree for a *Grove*, to shelter a house and walks from *Summers heat* and *Win-*

ters cold Winds, and far more *laſting*; the pleaſanteſt *Cider-pear* of a known name amongſt them, is the *Horſe-pear*. And it is much argued, whether the *White-horſe-pear*, or the *Red-horſe-pear* be the better; where *both* are *beſt*, within two *Miles* they differ in judgment. The *Pear* bears almoſt its *weight* of ſprightful *winy Liquor*; and I always preferred the *tawny* or *ruddy Horſe-pear*, and generally *that colour* in all *Pears* that are proper for *Perry*.

44. I rejected *Palladius* againſt the durableneſs of *Perry*; his words are, *Hyeme durat, ſed prima aceſcit æſtate, Tit.* 25. *Febr.* poſſibly ſo of common *Pears*, and in hotter Countries; but from good *Cellars* I have taſted a very brisk lively and *winy liquor* of theſe *Horſe-pears* during the end of *Summer*; and a *Bosbury-pear* I have named and often tried, which without *bottleing*, in common *Hogſheads* of vulgar and indifferent *Cellars*, proves as well pleaſanter as richer the *ſecond* year, and yet alſo better the *third* year. A very honeſt, worthy and witty *Gentleman* of that neighbourhood would engage to me, that in good *Cellars*, and in careful cuſtody, it paſſeth any account of decay, and may be *heightned* to a kind of *Aqua-vitæ*. I take the information worthy the *ſtile* of our modern *improvements*.

The *Pear-tree* grows in *common fields* and wild *ſtony ground*, to the largeneſs of bearing one, two, three or four *Hogſheads* each year.

45. This *Bosbury-tree*, and ſuch generally that bear the moſt laſting *Liquor* and *winy*, is of ſuch *unſufferable* taſte, that hungry *Swine* will not *ſmell* to it; or if *hunger* tempt them to taſte, at firſt cruſh they ſhake it out of their *mouths*; (I ſay not this of the *Horſe-pear*) and the Clowns call other *Pears*, of beſt Liquor, *Choak-pears*, and will offer money to ſuch as dare adventure to taſte them, for their *ſport*; and their *mouths* will be more *ſtupified* than at the root of *Wake-robin*.

46. A row of *Crab-trees* will give an improvement to any kind of *Perry*; and ſince *Pears* and *Crabs* may be of as many *kinds* as there are *kernels*, or different kinds or mixtures of *ſoils*; in a general *Character* I would prefer the largeſt and fulleſt of all auſtere juices.

47. M. *Lill* of *Mark-hill* (aged about 90 years) ever obſerved this Rule, to graff no *wild Pear-tree* till he ſaw the *fruit*; if it proved *large*, *juicy*, and *brisk*, it failed not of good *Liquor*. But I ſee cauſe to ſay, that to *graff* a young tree with a riper *graff*, and *known excellency*, is a ſure gain and haſtens the return.

48. M. *Speke* (laſt *high Sheriff* of *Somerſetſhire*) ſhewed me in his *Park* ſome ſtore of *Crab-trees*, of ſuch huge *Bulk*, that in this fertile year he offered a *wager*, that they would yield one or two *Hogſheads* of *Liquor* each of them; yet were they ſmall dry *Crabs*.

49. I have ſeen ſeveral ſorts of *Crabs* (which are the natural *Apple*, or at worſt but the *Wild-Apple*) which are as large as many ſorts of *Apples*, and the Liquor *winy*.

50. I have diſclaimed the *Guſt* of *Juniper-berries* in *Cider*; I tried

tried it only *once* for *myſelf*, and drank it before *Chriſtmas*: poſſibly in more time the relliſh had been ſubdued or improved, as of *Hops* in *ſtale Beer*, and of *Rennet* in good *Parmaſan*. Neither was the *Guſt* to me otherwiſe unpleaſant than as *Anniſe-ſeeds* in *Bread*, rather *ſtrange* than *odious*; and by cuſtom made grateful, and it did haſten the *clarification*, and increaſe the briskneſs to an endleſs *ſparkling*: thus it indulgeth the *Lungs*, and nothing more *cheap*; where *Juniper* grows a *Girl* may ſpeedily fill her lap with the *Berries*.

If *Barbados* Ginger be good, cheaper, and a more pleaſant preſerver of Beer, it muſt probably be moſt kind for *Cider*: For firſt, of all the improvers that I could name, bruiſed *Muſtard* was the beſt; and this *Ginger* hath the ſame quick, mordicant vigour, in a more noble and more *Aromatique* fragrancy. Secondly, *Cider* (as I oft complain) is of a ſluggiſh and ſomewhat windy nature; and for ſome *Moneths* the beſt of it is chain'd up with a cold *ligature*, as we fancy the fire to be lock'd up in a cold *Flint*. This will relieve the *priſoner*. And thirdly, will aſſiſt the *winy* vigour for them that would uſe it inſtead of a ſparkling *VVine*. Fourthly, 'Tis a good ſign of much kindneſs, and great friendſhip: it will both enliven the *ferment* for ſpeedier maturity, and alſo hold it out for more duration, both which offices it performs in Beer.

51. *Cider* being *windy* before maturity, ſome that muſt not wait the leiſure of beſt *Seaſon* do put ſprigs of *Roſe-mary* and *Bays* in the *Veſſel*; the *firſt* good for the *head*, and not unpleaſant; the *ſecond*, an *Antidote* againſt *Infections*; but leſs pleaſant till time hath incorporated the Taſtes.

52. And why may we not make mention of all theſe *Mixtures*, as well as the *Ancients* of their *Vinum Marrubii*, *Vinum Abrotonites*, *Abſynthites*, *Hyſſopites*, *Marathites*, *Thymites*, *Cydonites*, *Myrtites*, *Scillites*, *Violaceum*, *Sorbi*, *&c.*

53. And, for *mixtures*, I think we may challenge the *Ancients*, in naming the *Red-raſpy*; of which there is in this County a *Lady* that makes a *Bonella*, the beſt of *Summer drinks*. And more yet if we name the *Clove-july-flower*, or other *July-flowers*, a moſt grateful *Cordial*, as it is infuſed by a *Lady* in *Staffordſhire*, of the Family of the *Devereux's*, and by ſome *Ladies* of this Country.

54. I could alſo give ſome account of *Cherry-wine*, and Wine of *Plums*; the *laſt* of which (in the beſt Eſſay that I have yet ſeen) is hardly worthy to be named: But, I conceive, and have ground for it, that ſome good *Liquor* and *Spirits* may be drawn from ſome ſorts of them, and in *quantity*: And the vaſt ſtore of *Cherrys* in ſome places, under a *peny* the *pound*, and of *Plums* that bend the *Trees* with their *burdens*, and their expedite growth makes it cheap enough, and as in the other, ſo in theſe, the large *Engliſh* or *Dutch* ſharp *Cherry*, makes the *Cherry-wine*, and the full black, tawny *Plum*, as big as a *Walnut* (not the kind of *Heart-Cherrys*, nor the *Plum* which divides from the *ſtone*) make the *Wine*. Their cheapneſs ſhould recommend them to more general uſe at *Tables*, when *dryed* like *Prunellas* (an eaſie art) and then wholeſomer.

55. To

55. To return for *Red-ſtrake*; 'tis a good drink as ſoon as well *fermented*, or within a *Moneth*, better after ſome *Froſts*, and when *clarified*; rich *Wine*, when it takes the *colour* of *old Sack*. In a good *Cellar* it improves in *Hogſheads* the ſecond year; in *Bottles* and *ſandy Cellars* keeps the *Records* of late *revolutions* and old *Majoralties*. *Quære* the manner of laying them up in *ſand-houſes*.

56. I tried ſome *Bottles* all a *Summer* in the bottom of a *Fountain*; and I prefer that way where it may be had. And 'tis ſomewhat ſtrange if the Land be neither dry for a *ſand-houſe*, nor *fountainous* for this better expedient. When *Cider* is ſettl'd, and altogether, or almoſt *clarifi'd*, then to make it *ſprightful* and *winy*, it ſhould be drawn into well *cork'd* and well bound *bottles* and kept ſome time in *ſand* or water; the longer the better, if the kind be good. And *Cider* being preſerved to due *age*, *bottl'd* (and kept in cool places, *conſervatories*, and *refrigerating* ſprings) it does almoſt by time turn to *Aqua-vitæ*; the *Bottles* ſmoak at the opening, and it catches *flame* ſpeedily, and will burn like *ſpirit* of *VVine*, with a fiery taſte; and it is a laudable way of trying the vigour of *Cider* by its promptneſs to *burn*, and take *fire*, and from the quantity of *Aqua-vitæ* which it yields. *Cider* affords by way of *Diſtillation*, an incomparable and uſeful *Spirit*, and that in ſuch plenty, as from *four Quarts*, a full *Pint* has been extracted.

57. I muſt not preſcribe to other *Palats*, by aſſerting to what degree of *Perfection* good *Cider* may be raiſed, or to compare it with *VVines*: But when the late *King* (of bleſſed memory) came to *Hereford* in his diſtreſs, and ſuch of the *Gentry* of *VVorceſterſhire* as were brought thither as *Priſoners*; both *King*, *Nobility*, and *Gentry*, did prefer it before the beſt *VVines* thoſe parts afforded; and to my knowledge that *Cider* had no kind of *Mixture*. Generally all the *Gentry* of *Herefordſhire* do abhor all mixtures.

Yet if any man have a deſire to try *concluſions*, and by an harmleſs *Art* to convert *Cider* into *Canary-wine*; let the *Cider* be of the former year, *Maſculine* and in full body, yet pleaſant and well taſted: into ſuch *Cider* put a *ſpoonful*, or *ſo*, of the *ſpirit* of *Clary*, it will have ſo much of the *race* of *Canary*, as may deceive ſome who pretend they have diſcerning *Palats*.

SIR

Sir *PAUL NEIL's*
DISCOURSE
OF
CIDER.

My Lord,

IN obedience to the *Commands* of this *Honourable Society*, I have at length endeavoured to give this brief *Account* of that little which I know concerning the *Ordering* of *Cider*; and in *that* I ſhall propound to my ſelf *ſix* things.

Firſt, To ſhew that *Cider* made of the beſt *Eating-apples* muſt needs be *once* the beſt; (that is to ſay) the pleaſanteſt *Cider*.

Secondly, That hitherto the general opinion hath been otherwiſe, and that the reaſon of that miſtake was the not apprehending the true cauſe why the *Pepin-cider*, *&c.* did not retain its ſweetneſs, when the *Hard-apple-cider* did.

Thirdly, What is the true cauſe that *Pepin-cider*, uſed in the ordinary method, will not retain its ſweetneſs.

Fourthly, How to cure that *evil* in *Pepin-cider*.

Fifthly, A probable conjecture, how in ſome degree by the ſame *Method* to amend the *Hard-apple-cider*, and *French-Wine*.

Sixthly, That what is here propounded cannot chuſe but be *wholſome*, and may be done to what degree every mans *Palate* ſhall wiſh.

Having now told your *Lordſhip*, what I will endeavour to do before I enter upon it, I muſt declare what I will not in the leaſt pretend to do.

1. I do not pretend to any thing concerning the *planting* and *graffing* of *Trees*, &c.

Nor what *Trees* will ſooneſt *bear* or *laſt* longeſt.

Nor what *ſorts* of *Trees* are the beſt *bearers*, and may with leaſt danger grow in *Common fields*.

Nor what *ſort* of *fruit* will yield the greateſt ſtore of *Cider*.

Nor what *Cider* will *keep* the longeſt, and be the ſtrongeſt, and wholeſomeſt to *drink* conſtantly with *meat*.

The

The only thing I ſhall endeavour, being to preſcribe a way to make a ſort of *Cider* pleaſant and quick of taſte, and yet wholeſom to *drink*, ſometimes, and in a moderate proportion: For, if this be an *Hereſie*, I muſt confeſs my ſelf guilty; that I prefer *Canary wine*, *Verdea*, the pleaſanteſt *Wines* of *Greece*, and the *High-country-wines* before the *harſh Sherries*, *Vin de Hermitage*, and the *Italian* and *Portugal* rough *Wines*, or the beſt *Graves-wines*; not at all regarding that I am told, and do *believe*, that theſe *harſh wines* are more comfortable to the *ſtomack*, and a *Surfeit* of them leſs *noxious*, when taken; nor to be taken but with drinking greater quantities than can with ſafety be taken of thoſe other pleaſant *Wines*: I ſatisfying my ſelf with this, that I like the *pleaſant Wines* beſt; which yet are ſo wholeſom, that a man may drink a moderate quantity of them without prejudice.

Nor ſhall I at all concern my ſelf, whether this ſort of *Cider* I pretend to is ſo *vinous* a liquor; and conſequently will yield ſo much *ſpirit* upon *Diſtillation*, or ſo ſoon make the *Country-man* think himſelf a *Lord*, as the *Hard-apple-cider* will do: nor whether it will *laſt* ſo long; for it is no part of my *deſign* to perſwade the *World* to lay by the making of *Hard-apple-cider*; but rather in a degree to ſhew how to improve that in point of pleaſantneſs, and that by the making and rightly ordering of *Cider* of the beſt *Eating-Apples*; as *Golden-pepins*, *Kentiſh-pepins*, *Pear-mains*, *&c.* there may be made a more pleaſant *liquor* for the time it will laſt, than can be produced from thoſe *Apples* which I call *Hard-Apples*, that is to ſay, *Red-ſtrakes*, *Gennet-moyles*, the *Bromſbury-Crab*, &c. which are ſo *harſh* that a *Hog* will hardly eat them.

Nor ſhall I at all meddle with the making of *Perry*, or of any mixed drink of the juyce of *Apples* and *Pears*; though poſſibly what I ſhall ſay for *Cider* may be aptly applied to *Perry* alſo.

For the *firſt* particular, I *aſſerted* that the beſt *Apples* would make the pleaſanteſt, which in my ſence is the beſt *Cider*; (and I account thoſe the beſt Apples, whoſe juyce is the pleaſanteſt at the time when firſt preſſed, before fermentation) I ſhall need (beſides the experience of the laſt *ten* years) only to ſay, that it is an undeniable thing in all *Wines*, that the pleaſanteſt *Grapes* make the richeſt and pleaſanteſt *Wines*; and that *Cider* is really but the *Wine* of *Apples*, and not only made by the ſame way of *Compreſſion*; but lett to it ſelf hath the ſame way of *Fermentation*; and therefore muſt be liable to the ſame meaſures in the choice of the materials.

To my ſecond *Aſſertion*, that this truth was not formerly owned, by reaſon that in *Herefordſhire*, and thoſe Countries where they abound both with *Pepins* and *hard-apples* of all ſorts, they made *Cider* of both ſorts, and uſed them alike; that is, that as ſoon as they *ground* and *preſſed* the *Apples* and *ſtrained* the *Liquor*, they put it into their *Veſſels* and there let it lye till it had wrought, and afterwards was ſetled again and *fined*; as not thinking it wholeſom to drink till it had thus (as they call it) *purg'd* it ſelf,

and

and this was the frequent uſe of moſt men in the more *Southern* and *Weſtern* parts of *England* alſo. Now when *Cider* is thus uſed, it is no wonder that when they came to broach it, they for the moſt part found their *Pepin-cider* not ſo pleaſant as their *Moyle* or *Red ſtrake cider*; but to them it ſeemed a wonder, becauſe they did not know the *reaſon* of it (which ſhall be my next work to make out) for till they knew the *reaſon* of this *effect*, they had no cauſe but to think it was the nature of the ſeveral *Apples* that produced it; and conſequently to prefer the *Hard-Apple-cider*, and to uſe the other Apples (which were good to eat *raw*) for the *Table*: which was an uſe not leſs neceſſary, and for which the *hard-apples* were totally improper.

To my *third* Aſſertion, which is, that in *Herefordſhire* they knew not what was the true cauſe why their *Pepin-cider* (for by that name I ſhall generally call all ſorts of *Cider* that is made of *Apples* good to eat raw) was not, as they uſed it, ſo good as the *Cider* made of *hard-apples* (for by that name, for brevities ſake, I ſhall call the *Cider* of *Moyle*, *Red-ſtrake*, and all other ſorts of *harſh Apples*, not fit to eat raw.) *Firſt*, I ſay, for all *liquors* that are *Vinous*, the cauſe that makes them ſometimes harder or leſs pleaſant to the taſte, than they were at the firſt preſſing, is the too much *fermenting*: If *Wine* or *Cider* by any *accidental* cauſe do *ferment* twice, it will be harder than if it had *fermented* but once; and if it *ferment* thrice, it is harder and worſe than if it had *fermented* but twice: and ſo onward, the oftner it *ferments* and the longer it *ferments*, it ſtill grows the harder. This being laid as a *foundation*, before we proceed further we muſt firſt conſider what is the cauſe of *fermentation* in *Wine*, *Cider*, and all other *Vinous Liquors*. Which (in my poor opinion) is the groſs part of the *Liquor*, which ſcapes in the ſtraining of the *Cider* (for in making of *Wine*, I do not find that they uſe the curioſity of ſtraining) and which is generally known by the name of the *Lee* of that (*Wine* or) *Cider*. And this *Lee* I ſhall, according to its thickneſs of parts, diſtinguiſh into the *groſs Lee*, and the *flying Lee*.

Now, according to the old method of making and putting up of *Cider*, they took little care of putting up *only* the clear part of the *Cider* into their Veſſels or *Cask*; but put them up thick and thin together, not at all regarding this *ſeparation*; for experimentally they found that how thick ſoever they put it up, yet after it had throughly wrought or *fermented* and was ſetled again, it would ſtill be clear; and perchance that which was put up the ſooneſt after it was preſſed and the thickeſt, would, when the *fermentation* was over, be the cleareſt, the briſkeſt, and keep the longeſt. This made them confidently believe that it was not only not inconvenient to put it up quickly after the *preſſing*, but in ſome degree neceſſary alſo to put it up ſoon after the *preſſing*, ſo that it might have ſo much of the *Lee* mixed with it, that it might certainly, ſoon, and ſtrongly put it into a *fermentation*, as the only means to make it *wholſom*, *clean* and *briſk*; and when it ei-

ther did not (or that they had reaſon to doubt) that it would not work or *ferment* ſtrongly enough, they have uſed to put in *Muſtard* or ſome other thing of like nature to increaſe the *fermentation*.

Now that which in *Cider* of *Pepins* hath been a cauſe of greater *fermentation* than in *Cider* of *Hard-Apples*, being both uſed after the former method, is this, that the *Pepins* being a ſofter fruit are in the *Mill* bruiſed into ſmaller *particles* than the harder ſorts of *Apples*; and conſequently more of thoſe ſmall parts paſs the ſtrainer in the *Pepin-Cider* than in the *Cider* of *Hard-apples*, which cauſeth a ſtronger *fermentation*, and (according to my former *principle*) a greater loſs of the native ſweetneſs than in that of *Hard-apple-cider*; and not only ſo, but the *Lee* of the *Hard-apple-cider* being compounded of greater *particles* than the *Lee* of the *Pepin-cider*, every individual *particle* is in it ſelf of a greater weight than the particles of the Lee of the *Pepin-cider*; and conſequently leſs apt to riſe upon ſmall motions, which produceth this effect; that when the *fermentation* of the *Hard-apple-cider* is once over, unleſs the Veſſel be ſtirred, it ſeldom falls to a ſecond *fermentation*; but in *Pepin-cider* it is otherwiſe: For if the *groſs Lee* be ſtill remaining with the *Cider*, it needs not the motion of the Veſſel to cauſe a new *fermentation*, but every motion of the *Air* by a change of *weather* from dry to moiſt will cauſe a new *fermentation*, and conſequently make it work till it hath deſtroyed it ſelf by loſing its native ſweetneſs. And this alone hath been the cauſe, why commonly when they *broach* their *Pepin-cider* they find it ſo unpleaſant, that generally the *Hard-apple-cider* is preferred before it, although at firſt it was not ſo pleaſant as the *Pepin-cider*. Yet after this miſchief hath prevailed over the *Pepin-cider*, it is no wonder to find the *Hard-apple-cider* remaining not only the ſtronger, but even the more pleaſant taſted. This to me ſeems ſatisfactory for the diſcovery of the *cauſe*, why in *Herefordſhire* the *Hard-apple-cider* is preferred before the *Pepin-cider*. But perhaps it may by ſome be *objected*, that they have before the *ten years*, in which you pretend you found this to be the cauſe of ſpoiling the *Pepin-cider*, been in *Herefordſhire*, and taſted the beſt *Cider* that *Country* did afford; and yet it was not like the *Pepin-cider* they had before then taſted in other parts. To this I do *anſwer*, at preſent, briefly, that by ſome miſtake, or chance, the maker of this *Pepin-cider*, which proved good, had done that, or ſomewhat like that, which under the next *Aſſertion* I ſhall ſet down, as a *Method* to cure the inconveniences which happen to *Pepin-cider*, by the ſuffering it to *ferment* too often, or too ſtrongly; but till that be explained it would be improper to ſhew more fully what theſe particular *accidents* might poſſibly be, which (without the intention of thoſe perſons which made the *Cider*) cauſed it to prove much better than their expectation, or indeed better than any could afterwards make: they poſſibly aſſigning the goodneſs of that *Cider* to ſomewhat that was not really the *cauſe* of that *effect*.

To

To juſtifie my fourth *Aſſertion*, and ſhew a *Method* how to *cure* the inconveniency which happens to *Pepin cider* by the over-working, I muſt firſt take notice of ſome things which I have been often told concerning *Wine*, and which indeed gave me the light to know what was the *cauſe* which had made *Pepin-cider* that had wrought long, *hard* when it came to be *clear* again. The thing I mean, is, that in divers *parts*, and even in *France* they make *three ſorts* of *Wine* out of one and the ſame *Grapes*; that is, they firſt take the *juice* of the *Grapes* without any more preſſing than what comes from their own weight in the *Vat*, and the bruiſing they have in putting into Veſſel, which cauſeth the ripeſt of thoſe *Grapes* to break, and the *juice* without any preſſing at all makes the pleaſanteſt and moſt delicate *Wine*: And if the *Grapes* were *red*, then is this firſt *Wine* very *pale*. The ſecond ſort they preſs a little, which makes a *redder Wine*, but neither ſo pleaſant as the firſt, nor ſo harſh as the laſt, which is made by the utmoſt preſſing of the very *skins* of the *Grapes*, and is by much more harſh, and of deeper colour than either of the other two. Now I preſume the *cauſe* of this (at leaſt in part) to be, that in the firſt ſort of *Wine*, which hath little of the ſubſtance, beſide the very *juice* of the *Grape*, there is little *Lee*, and conſequently little *fermentation*; and becauſe it doth not work long, it loſeth but little of the original ſweetneſs it had: The ſecond ſort being a little more preſſed hath ſomewhat more of the ſubſtance of the *Grape* added to the *juice*; and therefore having more of that part which cauſeth *fermentation* put with it, *ferments* more ſtrongly, and is therefore, when it hath done working, leſs pleaſant than the firſt ſort, which wrought leſs. And for the ſame reaſon the *third ſort* being moſt of all preſſed, hath moſt of the ſubſtance of the *Grape* mingled with the *Liquor*, and worketh the longeſt: but at the end of the working when it *ſettles* and is *clear*, it is much more harſh than either of the two firſt ſorts. The thought of this made me firſt apprehend that the *ſubſtance* of the *Apple* mingled with the *juice*, was the cauſe of *fermentation*, which is really nothing elſe but an endeavour of the *Liquor* to free it ſelf from thoſe *Heterogeneous* parts which are mingled with it: And where there is the greateſt proportion of thoſe *diſſimilar* parts mingled with the *Liquor*, the endeavour of *Nature* muſt be the ſtronger, and take up more time to perfect the *ſeparation*: which when finiſhed leaves all the *Liquor* clear, and the groſs parts ſettled to the bottom of the *Veſſel*; which we call the *Lee*. Nor did this apprehenſion deceive me; for when I began (according to the *Method* which I ſhall hereafter ſet down) to ſeparate a conſiderable part of the *Lee* from the *Cider* before it had *fermented*, I found it to retain a very great part of its original ſweetneſs, more than it would have done if the *Lee* had not been taken away before the *fermentation*; and this not once, but conſtantly for *ſeven years*.

Now the *Method* which I uſed, was this: When the *Cider* was firſt ſtrained, I put it into a great *Vat*, and there let it ſtand *twenty four hours* at leaſt (ſometimes more, if the *Apples* were more ripe

than ordinary) and then at a *tap* before prepared in the *Veſſel* three or four *inches* from the bottom I drew it into *pails*, and from thence filled the *Hogſhead* (or leſſer *Veſſel*) and left the greateſt part of the *Lee* behind; and during this time that the *Cider* ſtood in the *Vat*, I kept it as cloſe covered with *hair-clothes* or *ſacks* as I could; that ſo too much of the *ſpirits* might not evaporate.

Now poſſibly I might be asked why I did not, ſince I kept it ſo cloſe in the *Vat*, put it at firſt into the *Veſſel*? To which I anſwer, that had I put it at firſt into the *Veſſel*, it would poſſibly (eſpecially if the *weather* had chanced to prove wet and warm) have begun to *ferment* before that time had been expired; and then there would have been no poſſibility to have ſeparated any part of the *groſs Lee*, before the *fermentation* had been wholly finiſhed; which keeping it only covered with theſe clothes was not in danger: For, though I kept it warm in ſome degree, yet ſome of the *ſpirits* had ſtill liberty to *evaporate*; which had it been in the *Hogſhead* with the *Bung* only open, they would not ſo freely have done; but in the firſt 24 *hours* it would have begun to *ferment*, and ſo my deſign had been fully loſt: For thoſe *ſpirits*, if they had been too ſtrongly *reverberated* into the *Liquor*, would have cauſed a *fermentation* before I could have taken away any part of the *groſs Lee*. For the great *myſtery* of the whole thing lies in this, to let ſo many of the *ſpirits* evaporate, that the *liquor* ſhall not *ferment* before the *groſs Lee* be taken away; and yet to keep *ſpirits* enough to cauſe a *fermentation* when you would have it. For if you put it up as ſoon as it is *ſtrained*, and do not let ſome of the *ſpirits* evaporate, and the *groſs Lee* by its weight only to be ſeparated without *fermentation*, it will *ferment* too much and loſe its ſweetneſs; and if none be left, it will not *ferment* at all; and then the *Cider* will be dead, flat and ſoure.

Then after it is put into the *Veſſel*, and the *Veſſel* fill'd all but a little (that is, about a *Gallon* or thereabout) I let it ſtand (the *Bung-hole* being left only covered with a *paper*, to keep out any duſt or filth that might fall in) for 24 *hours* more; in which time the *groſſeſt* part of the *Lee* being formerly left in the *Vat*, it will not *ferment*, but you may draw it off by a *Tap* ſome two or three inches from the bottom of the *Veſſel*, and in that ſecond *Veſſel* you may ſtop it up, and let it ſtand ſafely till it be fit to *Bottle*; and poſſibly that will be within a day or more: but of this time there is no certain meaſure to be given; there being ſo many things that will make it longer, or leſs while before it be fit to *bottle*. As for *Example*, If the *Apples* were *over-ripe* when you ſtamped them, or ground them in the *Mill*, it will be the longer before it will be clear enough to *Bottle*; or if the *weather* prove to be warmer or moiſter than ordinary: or that your *Apples* were of ſuch kinds, as with the ſame force in the ſtamping or grinding they are broken into ſmaller *particles* than other *Apples* that were of harder kinds.

Now, for knowing when it is fit to *Bottle*, I know no certain *Rule* that can be given, but to *broach* the *Veſſel* with a ſmall *Piercer*, and in that *hole* fit a *peg*, and now and then (two or three times in a day)

day) draw a little, and ſee what fineneſs it is of; for when it is *bottled* it muſt not be perfectly *fine*; for if it be ſo, it will not *fret* in the *bottle*, which gives it a fine quickneſs, and will make it *mantle* and ſparkle in the *glaſs*, when you pour it out: And if it be too thick when it is *bottled*, then, when it hath ſtood ſome time in the *bottles* it will *ferment* ſo much that it may poſſibly either drive out the *Corks*, or break the *bottles*, or at leaſt be of that ſort (which ſome call *Potgun-drink*) that when you open the *bottles* it will fly about the houſe, and be ſo *windy* and *cutting* that it will be inconvenient to drink: For the right *temper* of *Bottle-Cider* is, that it *mantle* a little and *ſparkle* when it is put out into the *glaſs*; but if it *froth* and *fly*, it was *bottled* too ſoon: Now the *temper* of the *Cider* is ſo nice, that it is very hard when you *bottle* it to foretell which of theſe two conditions it will have: but it is very eaſie within a few days after (that is to ſay, about a *week*, or ſo) to find its *temper* as to this point. For firſt, if it be *bottled* too ſoon; by this time it will begin to *ferment* in the *Bottles*, and in that caſe you muſt open the *Bottles*, and let them ſtand open two or three *minutes*, that that abundance of *ſpirits* may have *Vent*, which otherwiſe kept in would in a ſhort time make it of that *ſort* I called before *Potgun-drink*; but being let out, that danger will be avoided, and the *Cider* (without danger of breaking the *bottles*) will *keep* and *ferment*, but not too much. Now this is ſo eaſie a *remedy*, that I would adviſe all men rather to erre on the hand of *bottling* it too ſoon, than let it be too *fine* when they *bottle* it; for if ſo, it will not *fret* in the *bottle* at all; and conſequently, want that *briſkneſs* which is deſirable.

Yet even in this caſe there is a *Remedy*, but ſuch a one as I am always very careful to avoid, that ſo I may have nothing (how little ſoever) in the *Cider* but the *juice* of the *Apple*: But the *remedy* is, in caſe you be put to a neceſſity to uſe it, that you open every *bottle* after it hath been *bottled* about a week or ſo, and put into each *bottle* a little piece of *white Sugar*, about the bigneſs of a *Nutmeg*, and this will ſet it into a little *fermentation*, and give it that *briſkneſs* which otherwiſe it would have wanted. But the other way being full as eaſie, and then nothing to be added but the juice of the *Apple* to be ſimply the ſubſtance of your *Cider*, I chuſe to prefer the errour of being in danger to *bottle* the *Cider* too ſoon, rather than too late: Nay ſometimes in the *bottling* of one and the ſame *Hogſhead* (or other *Veſſel*) of *Cider*, there may the firſt part of it be too *fine*; the ſecond part *well*; and the laſt not *fine* enough: and this happens when it is *broached* firſt *above* the *middle*, and then *below*; and then when it begins to run low, *tilted* or raiſed at the further end, and ſo all drawn out. But to avoid this inconvenience, I commonly ſet the *bottles* in the order they were filled, and ſo we need not open all to ſee the condition of the *Cider*; but trying one at each end, and one in the middle, will ſerve the turn: And to prevent the inconveniency, *broach* not at all above the *middle*, nor too *low*; and when you have drawn all that will run at the *Tap*, you may be

ſecure

ſecure it is ſo far of the ſame *temper* with the firſt *bottle*. And then *tilt* the *Veſſel*; but draw no more in three or four hours at the leaſt after, and ſet them by themſelves, that ſo, if you pleaſe, you may three or four days after pour them off into other *bottles*, and leave the *groſs* behind: And by this means though you have a leſs number of *bottles* of *Cider* than you had, yet this will continue good, and neither be apt to *fly*, nor have a *ſediment* in the *bottle*, which after the firſt *glaſs* is filled will render all the reſt of the *bottle* thick and muddy.

By all this which I have ſaid, I think it may be made out that thoſe perſons which I mentioned in the end of the laſt *Paragraph*, that ſometimes had *Pepin-cider* better than ordinary, and indeed then they could make again, were beholding to *chance* for it; either that their *Apples* were not ſo full ripe at that as at *other* times, and ſo not bruiſed into ſo ſmall parts; but the *fermentation* was ended in the *Veſſel*, and the *Lee* being then *groſs* ſetled before the *Cider* had *fermented* ſo long as to be hard.

Or elſe, by ſome *Accident* they had not put it ſo ſoon into the *Veſſel*, but that in part it was ſetled before they put it up, and the groſſeſt part of the *Lee* left out of the *Veſſel*.

Or elſe, the *Bung* being left *open* ſome part of the *ſpirits* evaporated; and that made the *fermentation* the weaker, and to laſt the leſs time.

Or elſe, they put it up in ſuch a *ſeaſon* that the *weather* continued *cold* and *froſty* till the *fermentation* was quite over; and then it having wrought the leſs time, and with the leſs violence, it remained more pleaſant and rich than otherwiſe it would have done.

Now for the *time* of making *Pepin-cider*, I chuſe to do it in the *beginning* of *November*, after the *Apples* had been gathered and laid about three weeks or more in the *loft*, that ſo the *Apples* might have had a little time to *ſweat* in the houſe before the *Cider* was made, but not too much; for if they be not full *ripe* before they be *gathered*, and not ſuffered to lye a while in the *heap*, the *Cider* will not be ſo pleaſant; and if they be *too ripe* when they are *gathered*, or lye too long in the *heap*, it will be very difficult to ſeparate the *Cider* from the *groſs Lee* before the *fermentation* begins: and in that caſe it will work ſo long, that when it *fines* the *Cider* will be *hard*; for when the *Apples* are too *mellow*, they break into ſo ſmall *particles*, that it will be long before the *Lee* ſettles by its *weight* only: and then the *fermentation* may begin before it be *ſeparated*, and ſo deſtroy your intention of taking away the *groſs Lee*. And if the *Apples* be not *mellow* enough, the *Cider* will not be ſo pleaſant as it ought to be.

This being ſaid for the time of making the *Pepin-Cider*, may (*mutatis mutandis*) ſerve for all other ſorts of *Summer-fruit*; as the *Kentiſh-codling*, *Marigolds*, *Gilly-flowers*, *Summer-pearmains*, *Summer-pepins*, *Holland-pepins*, *Golden-pepins*, and even *Winter-pearmains*. For though they muſt not be made at the ſame *time* of the *year*, yet they muſt be made at the *time* when each reſpective

ſpective *fruit* is in the ſame condition that I before directed that the *Winter-pepin* ſhould be. Nay, even in the making of that *Cider*, you are not tied to that time of the *year* to make your *Cider*; but as the condition of that particular *year* hath been, you may make your *Cider* one, two, three or four weeks later; but it will be very ſeldom that you ſhall need to begin to make *Kentiſh-pepin-Cider* before the beginning of *November*, even in the moſt *Southern* parts of *England*.

The next thing I ſhall mention, is, the ordering of your *bottles* after they are *filled*; for in that conſiſts no ſmall part of cauſing your *Cider* to be in a juſt condition to *drink*: For, if it does *ferment* too much in the *bottle*, it will not be ſo convenient to *drink*, neither for the taſte, nor wholſomneſs; and if it *ferment* not at all, it will want that little *fret* which makes it *grateful* to moſt *Palates*. In order to this, you muſt obſerve, firſt, whether the *Cider* were *bottled* too early, or too late, or in the juſt time: If too early, and that it hath too much of the *flying Lee* in it, then you muſt keep it as cool as you can, that it may not work too much, and if ſo little that you doubt it will not work at all, or too little; you muſt by keeping it from the inconvenience of the external *air*, endeavour to haſten and increaſe the *fermentation*. And this I do, by ſetting it in *ſand* to cool, and by covering the *bottles* very well with *ſtraw*, when I would haſten or increaſe the *fermentation*.

And if I find the *Cider* to have been *bottled* in its juſt time, then I uſe *neither*, in ordinary weather; but content my ſelf that it ſtands in a cloſe and cool *Cellar*, either upon the *ground*, or upon *ſhelves*; ſaving in the time that I apprehend *froſt*, I cover it with *ſtraw*, which I take off as ſoon as the *weather* changeth; and conſequently about the time that the cold *Eaſt winds* ceaſe; which uſually with us, is in the beginning of *April*; I ſet my *bottles* into *ſand* up to the necks. And by this means I have kept *Pepin-cider* without change till *September*, and might have kept it longer, if my ſtore had been greater: For by that time the heats were totally over, and conſequently, the *cauſe* of the *turn* of *Cider*.

Having now declared what is (according to my opinion) to be done to preſerve *Cider*, if not in it's original ſweetneſs, yet to let it loſe as little as is poſſible; I ſhall now fall upon my *fifth Aſſertion*, which is, that it is probable that ſomewhat like the former *Method* may in ſome degree mend *Hard-Apple-cider*, *Perry*, or a drink made of the mixtures of *Apples* and *Pears*; and not impoſſible that ſomewhat of the ſame nature may do good to *French-wines* alſo.

Firſt, for *French-wines*, I think what I have in the beginning of this *diſcourſe* declared, as the hint which firſt put me upon the conceit, that the over-*fermenting* of *Cider* was the cauſe that it loſt of its original ſweetneſs (*viz.* the making of *three* ſorts of *Wine*, of *one* ſort of *Grapes*) is a teſtimony that the firſt ſort of *Wine* hath but little of the *groſs Lee*, and conſequently, *ferments* but little, nor loſeth but little of the original ſweetneſs; which makes

makes it evident that the ſame thing will hold in *Wine*, which doth in *Cider*; but the great difficulty is (if I be rightly informed) that they uſe to let the *Wine* begin to *ferment* in the *Vat* before they put it into the *Hogſheads* or other *Veſſels*; and thus they do, that the *Husks* and other *Filth* (which in the way they uſe, muſt neceſſarily be mingled with the *Wine*) may riſe in a *skum* at the top, and ſo be taken off: Now if they pleaſe, as ſoon as it is *preſſed*, to paſs the *Wine* through a *ſtrainer*, without expecting any ſuch *purgation*, and then uſe the ſame *Method* formerly preſcribed for *Cider*, I do not doubt but the groſs part of the *Lee* of *Wines*, being thus taken away, there will yet be enough left to give it a *fermentation* in the *bottles*, or ſecond *veſſel*, where it ſhall be left to ſtand, in caſe you have not *bottles* enough to put up all the *Wine* from which you have thus taken away the *groſs Lee*.

This *Wine* I know not whether it will laſt ſo long as the other uſed in the ordinary way, or not; but this I confidently believe, it will not be ſo harſh as the ſame would have been if it had been uſed in the ordinary way; and the pleaſantneſs of *Taſte*, which is not unwholſome, is the chief thing which I prefer both in *Wine* and *Cider*.

Now for the *Hard-apple-Cider*, that it will receive an improvement by this way of ordering, hath been long my opinion; but this year an accident happened, which made it evident that I was not miſtaken in this conjecture. For there was a *Gentleman* of *Herefordſhire*, this laſt *Autumn*, that by accident had not provided *Caſk* enough for the *Cider* he had made; and having ſix or ſeven *Hogſheads* of *Cider* for which he had no *Caſk*, he ſent to *Worceſter*, *Gloceſter*, and even to *Briſtol*, to buy ſome, but all in vain; and when his *ſervants* returned, the *Cider* that wanted *Caſk* had been ſome five days in the *Vat* uncovered; and the *Gentleman* being then diſpatching a *Barque* for *London* with *Cider*, and having neer hand a conveniency of getting *Glaſs-bottles*, reſolved to put ſome of it into *bottles*; did ſo, and filled ſeven or eight *Hampers* with the cleareſt of this *Cider* in the *Vat*, which had then never wrought, nor been put into any other *Veſſel* but the *Vat*; the *Barque* in which his *Cider* came had a tedious paſſage; that is, it was at leaſt ſeven weeks before it came to *London*, and in that time moſt of his *Cider* in *Caſk* had wrought ſo much that it was much harder than it would have been if it had according to the ordinary way lain ſtill in the *Country*, in the place where it was firſt made and put up, and conſequently, wrought but once.

But the other, which was in *Bottles*, and eſcaped the breaking, that is, by accident, had leſs of the *Lee* in it than other *bottles* had, or was not ſo hard ſtopped, but either before there was force enough from the *fermentation* to break the *bottle*, or that the *Cork* gave way a little, and ſo the *air* got out; or that the *Bottles* were not originally well *corked*, was excellent good, beyond any *Cider* that I had taſted out of *Herefordſhire*; ſo that from this *Experience* I dare confidently ſay, that the uſing *Hard-apple-cider* after the former *Method*, preſcribed for *Pepin-cider*, will make it retain

tain a conſiderable part of ſweetneſs more than it can do after the *Method* uſed hitherto in *Herefordſhire*. Nor do I doubt but my *Method* will in a degree have the ſame effect in *Perry*, and the drink (as yet without a name that I do know of) which is made of the *Juice* of *Wardens*, *Pears*, and *Apples*, by ſeveral perſons, in ſeveral proportions; for the *Reaſon* being the ſame, I have no cauſe to doubt, but the *effect* will follow, as well in thoſe *Drinks*, as in *Cider* and *Wines*.

I am now come to my laſt *Aſſertion*; that *Cider* thus uſed cannot be *unwholeſom*, but may be done to what degree any mans *Palate* deſires.

Firſt, It cannot be *unwholeſome*, upon the ſame meaſure that *ſtummed Wine* is ſo; for that unwholeſomneſs is by leaving the cauſe of *fermentation* in the *Wine*, and not ſuffering it to produce its *effect* before the *Wine* be drank, and it *ferments* in mans body: and not only ſo, but ſets other *humours* in the body into *fermentation*; and this prejudiceth their *health* that drink ſuch *Wines*.

Now though *Cider* uſed in my *method* ſhould not *ferment* at all, till it come into the *bottle*, and then but a little; yet the cauſe of *fermentation* being in a great degree taken away, the reſt can do no conſiderable harm to thoſe which drink it, being in it ſelf but little, and having wrought in the *bottle* before men drink it; nor indeed do I think, nor ever find, that it did any inconvenience to my ſelf, or any perſon that drank it when it was thus uſed.

Secondly, becauſe the difference of mens *palates* and *conſtitutions* is very great; and that accordingly men like or diſlike drink that hath more or leſs of the *fret* in it; and that the conſequences in point of health are very different, in the *method* by me formerly preſcribed: it is in your *power* to give the *Cider* juſt as much *fret* as you pleaſe, and no more; and that by ſeveral ways: for either you may *bottle* it ſooner or later, as you pleaſe: or you may *bottle* it from two *Taps* in your *Veſſel*, and that from the *higher* Tap will have leſs *fret*, and the *lower* more: or you may *bottle* your *Cider* all from one *Tap*, and open ſome of the *bottles* about a week after for a few *minutes*, and then ſtop them up again; and that which was thus ſtop'd will have the leſs *fret*: or, if your *Cider* be *bottled* all from one *Tap*, if you will (even without opening the *bottles*) you may make ſome difference, though not ſo conſiderable as either of the former ways, by keeping part of the *bottles* warmer, for the firſt two *Months*, than the reſt; for that which is kept warmeſt will have the moſt *fret*.

Sir *PAUL NEILE'S* ſecond Paper.

My Lord,

THe Paper which by the Command of the *Royal Society* I delivered in the laſt year, concerning the ordering of *Cider*, I have by this years experience found defective in one particular, of which I think fit by this to give you notice, which is thus: Whereas in the former *Paper* I mention, that after the *Pepin-Cider* hath ſtood 24 hours in the *Vat*, it might be drawn off into Pails, and ſo put into the Veſſel; and that having ſtood a ſecond 24 hours in that Veſſel, it might be drawn into another Veſſel, in which it might ſtand till it were fit to *Bottle*; for the particulars of all which proceeding I refer to the former Paper; and ſhall now only mention, That this laſt year we were fain to draw it off into ſeveral Veſſels, not only as is there directed, *twice*, but moſt of our *Cider* five, and ſome *ſix* times; and not only ſo, but we were after all this fain to *precipitate* the *Lee* by ſome of thoſe ways mention'd by Dr. *Willis* in the 7th *Chap.* of his Treatiſe *De fermentatione*. Now though this be more of trouble than the Method by me formerly mention'd; yet it doth not in the leaſt deſtroy that *Hypotheſis* which in the former Diſcourſe I laid down, (*viz.*) That it was the leaving too much of the *Lee* with the *Cider*, which upon the change of air, ſet it into a new *fermentation*, and conſequently made it loſe the ſweetneſs; for this change by the indiſpoſition of the *Lee* to ſettle this year more than others, hath not hindred the goodneſs of the *Cider*; but that when it was at laſt maſtered, and the *Cider* bottled in a fit temper, it was never more pleaſant and quick than this year: but I find that this year our *Cider* of Summer-Apples is already turned ſowre, although it be now but the firſt of *January*; and the laſt year it kept very well till the beginning of *March*; which makes me fear that our *Pepin-Cider* will not keep till this time twelvemoneth, as our *Pepin-Cider* of the laſt year doth till this day, and ſtill retains its original pleaſantneſs without the leaſt turn towards ſowreneſs.

And I am very confident, the difference of time and trouble, which this year we found in getting the *Cider* to *fine* and be in a condition to Bottle, was only the effect of a very bad and wet Summer, which made the Fruit not ripen kindly; and to make it yet worſe, we had juſt at the time when we made our *Cider*, this year, extream wet and windy weather, which (added to the unkindlineſs of the Fruit) was the whole cauſe of this alteration: And however my *Hypotheſis* as yet remains firm, for if by taking any part of the *Lee* from the *Cider* you can preſerve it in its original ſweetneſs, it is not at all material whether it be always to be done by twice drawing off from the *Lee*, or that it muſt ſometimes

times be done with more trouble, and by oftner repeating the ſame Work, ſo that finally it be done, and by the ſame means, that is, by taking away part of the *Lee*, which otherwiſe would have cauſed too much *fermentation*; and conſequently have made the *Cider* loſe part of its original ſweetneſs.

My Lord, I ſhould not have preſumed to have given you and the *Society* the trouble of peruſing this Paper, but that, if poſſible, I would have you ſee, that what I think an errour in any opinion that I have held, I am willing to own; and yet I deſire not that you ſhould think my miſtake greater than in Reality it is.

OBSERVATIONS
Concerning the
Making, and Preſerving
OF
CIDER:
BY
JOHN NEWBURGH Eſq;

1.

IF the *Apples* are made up immediately from the *Tree*, they are obſerv'd to yield *more*, but not ſo *good* Cider, as when *hoarded* the ſpace of a Moneth or ſix weeks; and if they contract any unpleaſing taſte (as ſometimes 'tis confeſs'd they do) it may be imputed to the Room they lie in, which if it hath any thing in it, of either too ſweet or unſavoury ſmell, the *Apples* (as things moſt ſuſceptible of impreſſion) will be eaſily tainted thereby.

One of my acquaintance, when a child, hoarding *Apples* in a Box where *Roſe-Cakes* and other ſweets were their companions, found them of ſo unſavoury taſte, and of ſo rank a reliſh deriv'd from the too near neighbour-hood of the Perfumes, that even a childiſh palate (which ſeldom miſlikes any thing that looks like an *Apple*) could not diſpenſe with it.

2.

It is therefore obſerv'd by prudent *Fruiterers*, to lay their *Apples* upon clean new made *Reed*, till they grind them for *Cider*, or otherwiſe make uſe of them. And if, notwithſtanding this caution, they contract any rottenneſs before they come to the *Cider-preſs*, the damage will not be great, if care be had before the *Apples* be ground, to pick out the finnewed and the black-rotten; the reſt, though ſomewhat of putrefaction hath paſs'd upon them, will not render the *Cider* ill condition'd, either in reſpect of taſte, or duration.

A Friend of mine having made proviſion of *Apples* for *Cider*, whereof ſo great a part were found rotten when the time of grinding them came, that they did, as 'twere waſh the Room with their Juice, through which they were carried to the *Wring*, had *Cider* from them not only paſſable, but exceeding good; though not without previous uſe of the pre-mention'd Caution. I am alſo aſſured by a Neighbour of mine, That a Brother of his who is a great *Cider-Merchant* in *Devonſhire*, is by frequent experience ſo well ſatisfied of the harmleſneſs of *Rotten-Apples*, that he makes no ſcruple of exchanging with any one that comes to his *Cider-preſs*, a Buſhel of *ſound-Apples* for the ſame meaſure of the other. Herein, I ſuppoſe, (if in other reſpects they be not prejudicial) he may be a gainer by the near compreſſion of the tainted Fruit, which, as we ſpeak in our Country Phraſe, will go nearer together than the other. His advantage may be the greater, if the conceit which goes current with them be not a bottomleſs fancy, That a convenient quantity of *rotten-Apples* mixt with the ſound, is greatly aſſiſtant to the work of *fermentation*, and notably helps to clarifie the *Cider*.

3.

It matters not much whether the *Cider* be forc'd to purge it ſelf by working downwards in the Barrel, or upwards at the uſual Vent, ſo there be matter ſufficient left on the top for a thick skin or film, which will ſometimes be drawn over it when it works, after the uſual manner, as when 'tis preſently ſtopt up with ſpace left for *fermentation*, to be perform'd altogether within the Veſſel.

The thick skin, or *Leathern-coat*, the *Cider* oftentimes contracts, as well after it hath purged it ſelf after the uſual manner, as otherwiſe, is held the ſureſt preſervation of its *ſpirits*, and the beſt ſecurity againſt other inconveniences incident to *this*, and other like *vinous* Liquors, of which the *Devonſhire Cider-Merchants* are ſo ſenſible, that, beſide the particular care they take, that matter be not wanting for the Contexture of this upper garment by ſtopping up the Veſſel as ſoon as they have fill'd it; (with the allowance of a Gallon or two upon the ſcore of *Fermentation*) they caſt in Wheaten Bran, or Duſt, to thicken the Coat, and render it more certainly Air-proof. And I think you will believe their care in this kind not impertinent, if you can believe a ſtory which I have to tell of its marvellous efficacy: A near neighbour of mine aſſures me, that his Wife having this year filled a Barrel with *Mead*, being ſtrong, it wrought ſo boiſtrouſly in the Veſſel, that the good Woman caſting her eye that way, accidentally, found it leaking at every chink, which aſcribing to the ſtrength of the Liquor, ſhe thought immediately by giving it vent, to ſave both the Liquor and the Veſſel, but in vain; both the Stopples being pulled out, the leakage ſtill continued, and the Veſſel not at all reliev'd, till caſually at length putting

putting in her finger at the top, ſhe brake the premention'd film; which done, a good part of the *Mead* immediately flying out, left the reſidue in peace, and the leakage ceaſed. It may ſeem incredible that ſo thin a skin ſhould be more coercive to a mutinous Liquor, than a Barrel with Oaken-Ribs, and ſtubborn Hoops: But I am ſo well aſſur'd of the veritableneſs of my Neighbours Relation, that I dare not queſtion it: The reaſon of it let wiſer men determine.

4.

If the *Apples* be abortive, having been (as it uſually happens) ſhaken down before the time by a violent Wind, it is obſerv'd to be ſo indiſpenſably neceſſary that they lie together in hoard, at leaſt till the uſual time of their maturity, that the *Cider* otherwiſe is ſeldom, or never found worth the drinking.

A Neighbour told me, That making a quantity of *Cider* with *Wind-falls* which he let ripen in the Hoard, near a month interceding between the time of their decuſſion, and that which Nature intended for their maturity; his *Cider* prov'd very good, when all his Neighbours who made up their untimely fruit aſſoon as it fell, had a crude, auſtere, indigeſted Liquor, not worth the name of *Cider*.

5.

No Liquor is obſerv'd to be more eaſily affected with the ſavour of the *Veſſel* it is put into, than *Cider*; therefore ſingular care is taken by diſcreet *Cider-Maſters*, That the *Veſſel* be not only *taſteleſs*, but alſo well prepar'd for the *Liquor* they intend to fill it with. If it be a new *Cask*, they prepare it by ſcalding it with Water, wherein a good quantity of *Apple-pomice* hath been boil'd: if a tainted *Cask*, they have divers ways of cleanſing it. Some boil an *Ounce* of *Pepper* in ſo much Water as will fill an *Hogſhead*, which they let ſtand in a Veſſel of that capacity two or three days, and then waſh it with a convenient quantity of freſh Water ſcalding hot, which they ſay is an undoubted cure for the moſt dangerouſly infected *Veſſel*. A Friend and Neighbour of mine herewith cured a Veſſel of ſo extream ill ſavour, as it was thought it would little leſs than poyſon any Liquor that was put into it. Others have a more eaſie, and perhaps no leſs effectual Remedy. They take two or three ſtones of quick-Lime, which in ſix or ſeven Gallons of Water they ſet on work in the *Hogshead* being cloſe ſtopt, and tumbling it up and down till the commotion ceaſe, it doth the feat. Of Veſſels that have been formerly uſed, next to that which hath been already acquainted with *Cider*, a *White-Wine*, or *Vinegar Cask* is eſteem'd the beſt; *Claret* or *Sack* not ſo good. A Barrel newly tenanted by ſmall *Beer* ſuits better with *Cider* than a ſtrong-*Beer* Veſſel.

6. Half

6.

Half a peck of unground Wheat put to *Cider* that is harſh and eager, will renew its *fermentation*, and render it more mild and gentle. Sometimes it happens without the uſe of any ſuch means to change with the ſeaſon, and becomes of *ſharp* and *ſour* unexpectedly *benigne* and *pleaſant*. Two or three *Eggs* whole put into an *Hogshead* of *Cider* that is become ſharp and near of kin to *Vinegar*, ſometimes rarely lenifies and gentilizes it. One pound of *broad-figs* ſlit, is ſaid to dulcifie an *Hogshead* of ſuch *Cider*.

A Neighbour *Divine*, of my acquaintance, aſſured me, That coming into a *Parſonage-houſe* in *Devonſhire*, where he found eleven *Hogsheads* of *Cider*; being unwilling to ſell what he never bought, he was three years in ſpending that ſtore which the former *Incumbent* had left him; and it greatly amus'd him (as well it might, if he remember'd the old *Proverb*, *He mends as ſour Ale in Summer*) to find the ſame *Cider*, which in *Winter* was almoſt as ſharp as *Vinegar*, in the *Summer* become a potable and good-natur'd Liquor.

7.

A little quantity of *Muſtard* will clear an *Hogshead* of muddy *Cider*. The ſame Virtue is aſcribed to two or three *rotten Apples* put into it. *Muſtard* made with *Sack* preſerves boild *Cider*, and ſpirits it egregiouſly.

8.

Cider is found to *ferment* much better in mild and moiſt, than in cold and dry weather. Every ones Experience hath taught him ſo much in the late froſty ſeaſon. If it had not wrought before, it was in vain to expect its working or clearing then, unleſs by ſome of the artificial means prementiond, which alſo could not be made uſe of in a more inconvenient time.

9.

The latter running of the *Cider* bottled immediately from the *Wring*, is by ſome eſteem'd a pure, clear, ſmall, well reliſht Liquor; but ſo much undervalued by them who deſire ſtrong drinks more than *wholeſome*, that they will not ſuffer it to incorporate with the firſt running.

In *Devonſhire* where their *Wrings* are ſo hugely great, that an *Hogshead* or two runs out commonly before the *Apples* ſuffer any conſiderable preſſure, they value this before the other, much

after

after the rate which we ſet upon *life-honey* (that which in like ſort drops freely out of the *Combs*) above that which renders not it ſelf without *compreſſion*. In *Jerſey* they value it a *Crown* upon an *Hogshead* dearer than the other: (This I take from the Relation of one of my Neighbours, who ſometimes lived in that *Iſland*, which for *Apples* and *Cider* is one of the moſt famous of all belonging to his *Majeſties* Dominions) Yet even upon *this*, and their choiceſt *Ciders*, they commonly beſtow a *pail* of *water* to every *Hogshead*, being ſo far (it ſeems) of *Pindar*'s mind, that they fear not any prejudice to their moſt excellent *Liquors* by a daſh of that moſt excellent *Element*: Inſomuch that it goes for a common ſaying amongſt them, That if any *Cider* can be found in their *Iſland*, which can be prov'd to have no mixture of *Water*, 'tis clearly forfeited. It ſeems they are ſtrongly conceited, that this addition of the moſt uſeful *Element*, doth greatly meliorate their *Cider*, both in reſpect of *Colour*, *Taſte*, and *Clarity*.

10.

The beſt *Cider-fruit* with us in this part of *Dorſetſhire* (lying near *Bred-port*) next to *Pepin* and *Pearmain*, is a *Bitter-ſweet*, or (as we vulgarly call them) *Bitter-ſcale*, of which for the firſt, the *Cider* unboil'd keeps well for one year; boiling it you may keep it two years or longer.

About ſeven years ſince I gave my ſelf the Experience of *Bitter-ſcale Cider* both crude and boil'd. I call'd them both to account at twelve Months end. I then found the *crude Cider* ſeemingly as good, if not better, than the *boiled*. But, having ſtopt up the *boil'd*, I took it to task again about ten Months after. At which time, I found it ſo exceſſively ſtrong, that five perſons would hardly venture upon an ordinary Glaſs full of it. My friends would hardly believe but I had heightned it with ſome of my *Chymical Spirits*. The truth is, I do not remember that I ever drunk any Liquor, on this ſide *Spirits*, ſo highly ſtrong, and *ſpirituous*; but wanting pleaſantneſs anſwerable to its ſtrength, I was not very fond of my *Experiment*. In which I boil'd away, as I remember, more than half.

11.

A Neighbour having a good Provent of *pure-Lings* (an *Apple* of choice account with us) making up a good part of them to *Cider*, expected rare Liquor, but it prov'd very mean and pitiful *Cider*, as generally we find that to be, which is made without mixture. We have few *Apples* with us, beſide the *Bitter-ſcale*, which yield good *Cider* alone; next to it

is

is a *Deans-Apple*, and the *Peleaſantine* I think may be mention'd in the third place; neither of which need the Addition of other *Apples* to ſet off the Reliſh, as do the reſt of our choiceſt Fruits. *Pepins*, *Pearmains*, and *Gilliflours* commixt, are ſaid to make the beſt *Cider* in the world. In *Jerſey* 'tis a general obſervation, as I hear, That the more of red any *Apple* hath in its rind, the more proper it is for this uſe. *Paleface't-Apples* they exclude as much as may be from their *Cider-Vat*. 'Tis with us an obſervation, That no *ſweet-Apple* that hath a tough rind, is bad for *Cider*.

12.

If you *boil* your *Cider*, ſpecial care is to be had, That you put it into the *furnace* immediately from the *Wring*; otherwiſe, if it be let ſtand in *Vats* or *Veſſels* two or three days after the preſſure, the beſt, and moſt *ſpirituous* part will aſcend, and vapour away when the fire is put under it; and the longer the *boiling* continues, the leſs of goodneſs, or virtue will be left remaining in the *Cider*.

My *Diſtillations* ſufficiently inſtruct me, That the ſame *Liquor* which (after *fermentation* hath paſs'd upon it) yields a plentiful quantity of *ſpirit*, drawn off unfermented, yields nothing at all of *ſpirit*. And upon the ſame account it is undoubtedly certain, That *Cider* boil'd immediately from the *Wring*, hath its *ſpirits* compreſt, and drawn into a narrower compaſs, which are for the moſt part waſh'd and evaporated by late unſeaſonable boiling.

CONCERNING CIDER,

By Doctor *SMITH.*

THE beſt time to *grind* the *Apples* is immediately from the *Tree*, ſo ſoon as they are throughly ripe: for, ſo they will yield the greater quantity of *Liquor*, the *Cider* will drink the better, and laſt longer than if the *Apples* were hoarded: For *Cider* made of hoarded *Apples* will always retain an unpleaſing taſte of the *Apples*, eſpecially if they contract any rottenneſs.

The *Cider* that is ground in a *Stone-caſe* is generally accuſed to taſte unpleaſantly of the *Rinds*, *Stems*, and *Kernels* of the *Apples*; which it will not if ground in a *Caſe* of *Wood*, which doth not bruiſe them ſo much.

So ſoon as the *Cider* is made, put it into the *Veſſel* (leaving it about the ſpace of one *Gallon* empty) and preſently ſtop it up very cloſe: This way is obſerved to keep it longer, and to preſerve its *ſpirits* better than the uſual way of filling the *Veſſel* quite full, and keeping it open till it hath done *fermenting*.

Cider put into a new Veſſel will often taſte of the *Wood*, if it be pierced early; but the ſame ſtopped up again, and reſerved till the latter end of the year, will free it ſelf of that taſte.

If the *Cider* be ſharp and thick it will recover it ſelf again: But if ſharp and clear, it will not.

About *March* (or when the Cider begins to ſparkle in the glaſs) before it be too fine, is the beſt time to bottle it.

Cider will be much longer in clearing in a mild and moiſt, then in a cold and dry *Winter*.

To every *Hogſhead* of *Cider*, deſigned for two years keeping, it is requiſite to add (about *March*, the firſt year) a quart of *Wheat* unground.

The beſt *Fruit* (with us in *Gloceſter-ſhire*) for the firſt years *Cider*, are the *Red-ſtrake*; the White and Red *Muſt-apple*, the ſweet and ſour *Pepin*, and the *Harvey-apple*.

Pearmains alone make but a ſmall liquor, and hardly clearing of it ſelf; but, mixed either with ſweet or ſour *Pepins*, it becomes very brisk and clear.

Muſt-apple-cider (though the firſt made) is always the laſt ripe; by reaſon that moſt of the *pulp* of the *Apple* paſſeth the *ſtrainer* in preſſing, and makes it exceeding thick.

The *Cider* of the *Bromsbury-Crab*, and *Fox-whelp*, is not fit for drinking, till the *ſecond year*, but then very good.

The *Cider* of the *Bromsbury-Crab* yields a far greater proportion of *ſpirits*, in the diſtillation, than any of the others.

Crabs and *Pears* mixed make a very pleaſing Liquor, and much ſooner ripe than *Pears* alone.

OF

OF CIDER.

By Capt. *SYLAS TAYLOR.*

Herefordſhire affords ſeveral ſorts of *Cider-apples*, as the two ſorts of *Red ſtraket*, the *Gennet-moyle*, the *Summer-violet*, or *Fillet*, and the *Winter-fillet*; with many other ſorts which are uſed only to make *Cider*. Of which ſome uſe each ſort *ſimply*; and others *mix* many ſorts together. This *County* is very well ſtored with other ſorts of *Apples*; as *Pepins*, *Pearmains*, *&c.* of which there is much *Cider* made, but not to be compared to the *Cider* drawn from the *Cider-apples*; among which the *Red-ſtrakes* bear the Bell; a *Fruit* in it ſelf ſcarce *edible*; yet the *juice* being preſſed out is immediately pleaſant in taſte, without any thing of that *reſtringency* which it had when incorporated with the *meat*, or *fleſh* of the *Apple*. It is many times *three Months* before it comes to its *clearneſs*, and *ſix Months* before it comes to a ripeneſs fit for *drinking*; yet I have taſted of it *three years old*, very pleaſant, though dangerouſly ſtrong. The *colour* of it, when *fine*, is of a ſparkling *yellow*, like *Canary*, of a good full body, and *oyly*: The *taſte*, like the *Flavour* or *perfume* of excellent *Peaches*, very grateful to the *Palate* and *Stomach*.

Gennet-moyles make a *Cider* of a ſmaller body than the former, yet very pleaſant, and will laſt a *year*. It is a good eating pleaſant ſharp fruit, when ripe, and the beſt *Tart-apple* (as the *Red-ſtrake* alſo) before its ripeneſs. The *Tree* grows with certain knotty *extuberancies* upon the *branches* and *boughs*; below which *knot* we cut off boughs the thickneſs of a mans *wriſt*, and place the knot in the ground, which makes the *root*; and this is done to raiſe this *fruit*; but very rarely by *graffing*.

Of *Fillets* of both ſorts (*viz.* Summer and Winter) I have made *Cider* of that proportionate taſte and ſtrength, that I have deceived ſeveral experienced *Palates*, with whom (ſimply) it hath paſſed for *White-Wine*; and *daſhing* it with *Red-Wine*, it hath paſſed for *Claret*; and mingled with the *Syrupe* of *Raſp'yes* it makes an excellent *womans wine*: The fruit is not ſo good as the *Gennet-moyle* to eat: The *Winter-fillet* makes a *laſting Cider*, and the

Summer-fillet an ***early Cider***, but both very ſtrong; and the *Apples* mixt together make a good ***Cider.***

Theſe *Apples* yield a ***liquor*** more grateful to my *Palate* (and ſo eſteem'd of in ***Herefordſhire*** by the greater *Ciderists*) than any made of ***Pepins*** and ***Pearmains***, of which ſorts we have very good in that ***Country***; and thoſe alſo both ***Summer*** and *Winter* of both ſorts, and of which I have drank the *Cider*; but prefer the other.

Grounds ſeparated only with a *Hedge* and *Ditch*, by reaſon of the difference of *Soils* have given a great alteration to the *Cider*, notwithſtanding the Trees have been grafted with equal care, the ſame *Graffs*, and laſtly, the ſame care taken in the making of the *Cider*. This as to the *Red-ſtrake*; I have not obſerv'd the ſame *niceneſs* in any other *fruit*; for *Gennet-moyles*, and *Fillets* thrive very well over all *Herefordſhire*. The *Red ſtrake* delights moſt in a fat ſoil: ***Hamlacy*** is a rich intermixt ſoil of *Red fat-clay* and *Sand*; and *Kings-capel* a low hot ſandy ground, both well defended from noxious *Winds*, and both very famous for the *Red-ſtrake-cider*.

There is a *Pear* in *Hereford* and *Worceſter-ſhires*, which is called *Bareland-pear*, which makes a very good *Cider*. I call it *Cider* (and not *Perry*) becauſe it hath all the *properties* of *Cider*. I have drank of it from half a year old to two years old. It keeps it ſelf without *Roping* (to which *Perry* is generally inclined) and from its taſte: Dr. *Beal*, in his little *Treatiſe* called the *Herefordſhire-Orchard*, calls it deſervingly a *Maſculine Drink*; becauſe in taſte not like the ſweet *luſcious feminine* juice of *Pears*. This *Tree* thrives very well in barren ground, and is a fruit (with the *Red-ſtrake*) of which *Swine* will not eat; therefore fitteſt to be planted in Hedge-rows.

Red ſtrakes and other *Cider-apples* when *ripe* (which you may know partly by the blackneſs of the *Kernels*, and partly by the *colour* and *ſmell* of the fruit) ought to be gathered in *Baskets* or *Bags*, preſerved from bruiſing, and laid up in heaps in the *Orchard* to *ſweat*; covered every night from the *dew*: Or elſe, in a *Barn-floor* (or the like) with ſome *Wheat* or *Rye-ſtraw* under them, being kept ſo long till you find, by their *mellowing*, they are fit for the *Mill*.

They that grind, or bruiſe their *Apples* preſently upon their *gathering*, receive ſo much *liquor* from them, that between *twenty* or *twenty two Buſhels* will make a *Hogshead* of *Cider*: but this *Cider* will neither *keep* ſo well, nor *drink* with ſuch a *fragrancy* as is deſired and endeavoured.

They that keep them a *month* or *ſix weeks* hoarded, allow about *thirty buſhels* to the making of a *Hogshead*; but this hath alſo an inconvenience; in that the *Cider* becomes not *fine*, or fit for drinking, ſo conveniently as a *mean* betwixt theſe two will afford.

Keep them then about a *fort-night* in a *hoard*, and order them to be of ſuch a *caſt* by this *Mellowing*, that about *twenty*

ty five Buſhels may make a *Hogshead*, after which mellowing proceed thus.

1. *Pick* and *clear* your *Apples* from their *ſtalks*, *leaves*, *moazineſs*, or any thing that tends toward *rottenneſs* or decay.

2. Lay them before the *ſtone* in the *Cider-Mill*, or elſe beat them ſmall with *Beaters* (ſuch as *Paviers* uſe to fix their pitching) in deep *troughs* of *Wood* or *Stone*, till they are fit for the *Preſs*.

3. Having laid clean *wheat ſtraw* in the bottom of your *Preſs*, lay a heap of bruiſed *Apples* upon it, and ſo with ſmall handfuls or *wiſps* of *ſtraw*, which by twiſting takes along with it the ends of the *ſtraw* laid firſt in the bottom, proceed with the bruiſed *Apples*, and follow the heaps with your twiſted *ſtraw*, till it comes to the height of two foot, or two foot and a half; and ſo with ſome *ſtraw* drawn in by *twiſting*, and turned over the top of it (ſo that the bruiſed *Apples* are ſet as it were into a deep *Cheeſ-vat* of *ſtraw*, from which the Country people call it their *Cider-Cheeſe*) let the *board* fall upon it *even* and *flat*, and ſo engage the force of your *skrew* or *Preſs* ſo long as any *Liquor* will run from it. Inſtead of this *Cheeſe* others uſe *baggs* of *Hair-cloth*.

4. Take this *Liquor* thus forced by the *Preſs*, and *ſtrain* it thorow a *ſtrainer* of *hair* into a *Vat*, from whence ſtraight (or that day) in *pails* carry it to the *Cellar*, tunning it up preſently in ſuch *Veſſels* as you intend to preſerve it in; for I cannot approve of a long *evaporation* of *ſpirits*, and then a diſturbance after it ſettles.

5. Let your *Veſſels* be very tight and clean wherein you put your *Cider* to ſettle: The beſt form is the *Stund* or *Stand*, which is ſet upon the leſſer end, from the top *tapering* downwards; as ſuppoſe the *head* to be *thirty* inches *diametre*, let then the *bottom* be but *eighteen* or *twenty* inches in *diametre*; let the *Tun-hole* or *Bung-hole* be on the one ſide *outwards*, towards the *top*. The reaſon of the goodneſs of this *form* of *Veſſel* is, becauſe *Cider* (as all ſtrong Liquors) after *fermentation* and working, contracts a *cream* or *skin* on the *top* of them, which in this form of *Veſſel* is as it ſinks *contracted*, and fortified by that contraction, and will draw freſh to the laſt drop; whereas in our ordinary *Veſſels*, when drawn out about the half or middle, this skin *dilates* and *breaks*, and without a quick draught decays and dies.

6. Reſerve a *Pottle* or *Gallon* of the *Liquor* to fill up the *Veſſel* to the brim of the *Bung-hole*, as oft as the *fermentation* and working leſſens the *Liquor*, till it hath done its work.

7. When it hath compleated its work, and that the *Veſſel* is filled up to the *bung-hole*, ſtop it up cloſe with well mix'd *clay*, and well tempered, with a handful of *Bay-ſalt* laid upon the top of the *clay*, to keep it moiſt, and renewed as oft as need ſhall require; for if the *clay* grows dry it gives *vent* to the *ſpirits* of the *Liquor*, by which it ſuffers decay.

I am

I am againſt either the *boyling* of *Cider*, or the hanging of a bag of *Spices* in it, or the uſe of *Ginger* in drinking it; by which things people labour to correct that *windineſs* which they fancy to be in it: I think *Cider* not *windy*; thoſe that uſe to drink it are moſt free from *windineſs*; perhaps the *virtue of* it is ſuch, as that once ripened and mellowed, the drinking of it in ſuch ſtrength combates with that *wind* which lies inſenſibly latent in the body. The *Cider* made and ſold here in *London* in *Bottles* may have that *windineſs* with it as *Bottle-beer* hath, becauſe they were never ſuffered to *ferment*: But thoſe that have remarked the ſtrength and vigour of its *fermentation*, what weighty things it will caſt up from the bottom to the top, and with how many bubbles and bladders of *wind* it doth *work*, will believe that it clears it ſelf by that operation of all ſuch injurious *qualities*.

To preſerve *Cider* in *Bottles* I recommend unto you my own *Experience*, which is, Not to *bottle* it up before *fermentation*; for that incorporates the *windy quality*, which otherwiſe would be ejected by that operation: This violent ſuppreſſion of fermentation makes it *windy* in drinking, (though I confeſs *brisk* to the *taſte*, and *ſprightly* cutting to the *Palate*:) But after *fermentation*, the *Cider* reſting two, three, or four Months, draw it, and *bottle* it up, and ſo lay it in a *Repoſitory* of cool *ſpringing water*, two or three foot, or more, deep; this keeps the *ſpirits*, and the beſt of the *ſpirits* of it together: This makes it drink quick and lively; it comes into the *glaſs* not *pale* or troubled, but bright *yellow*, with a ſpeedy vaniſhing *nittineſs*, (as the *Vintners* call it) which *evaporates* with a *ſparkling* and *whizzing* noiſe; And than this I never taſted either *Wine* or *Cider* that pleaſed better: Inſomuch that a *Noble-man* taſting of a *Bottle* out of the *water* (himſelf a great *Cideriſt*) proteſted the excellency of it, and made with much greater charges, at his own dwelling, a *water Repoſitory* for his *Cider*, with good ſucceſs.

An

An ACCOUNT of

Perry and Cider

Out of *GLOCESTER-SHIRE*,

Imparted by

DANIEL COLLWALL Esq;

ABout *Taynton*, Five Miles beyond *Glocester*, is a mixt sort of *land*, partly *Clay*, a *Marle*, and *Crash*, as they call it there, on all which sorts of *land*, there is much *Fruit* growing, both for the *Table* and for *Cider*: But it is *Pears* it most abounds in, of which the *best* sort, is that they name the *Squash-Pear*, which makes the best *Perry* in those Parts. These *Trees* grow to be very large, and exceeding fruitful, bearing a fair round *Pear*, red on the one side, and yellow on the other, when fully ripe: It oftentimes falls from the *Tree*, which commonly breaks it; but it is of a nature so *harsh*, that the *Hogs* will hardly *eat them*.

They usually plant the *stocks* first, and when of competent bigness (and tall enough to prevent *Cattel*) *graff* upon them: 'Tis observed, that where *land* is *Plow'd* and dress'd for *Corn*, the *Trees* thrive much better than in the *Pasture-grounds*, so as divers *Orchards* are yearly plow'd and sown with Corn, which for the most part, they suffer their *Swine* to eat upon the ground, without cutting; and such *Plantations* seldom or never fail of plentiful *Crops*, especially in the *Rye-land*, or light Grounds.

About *Michaelmas* is made the best *Cider*, and that of such *Fruit* as drops from the *Trees*, being perfectly mature; and if any are gathered sooner, they let them lye in the *house* 8 or 9 days for the better mellowing.

The best *Mills* to grind in, are those of *Stone*, which resembles a *Mill stone* set *edge*-ways, moved round the *Trough* by an *Horse* till the *Fruit* be bruised small enough for the *Press*: This done, then put it up into a *Crib* made with strong studds, and *Oken* or *Haisel* twigs about 3 *foot* high, and 2 ½ wide, which is placed on a *Stone* or Wooden *Cheese-fat*, a *foot* broader than the *Crib*, fitted to a round *Trough* for the *Liquor* to pass into the *Cistern* which is a large Vessel: When the *Crib* is filled with the foresaid ground *Fruit*, they put a *Stone* upon it, but first they fit a *Circle* of fresh *straw* about the *Crib*, to preserve the *Must* (which is the bruised *Fruit*) from straining through the *Crib* when they apply the *Skrews*, which being *two* in number, and of a good size, turn in a great *beam*, and so are wrung down upon the

the *Crib*, within which they place two wide and thick *Cheese-fats*, and ſeveral *blocks* upon the *Fruit*, to cruſh it down with the more force, by which means it is wrung ſo *dry*, as nothing can be had more out of it. A *Crib* will contain at *once*, as much ground *Fruit*, as will make above an *Hogs-head* of *Cider*, and there may be diſpatched *ſix* or *ſeven* ſuch *Veſſels* in one day.

When the *Preſſing* is finiſhed, they take out the *Fruit*, and put it into a great *Fat*, pouring ſeveral *Payls* of *Water* to it, which being well *impregn'd*, is ground again ſleightly in the *Mill*, to make an ordinary *Cider* for the *ſervants*; this they uſually drink all the *Tear* about.

When the beſt *Liquor* is tun'd up, they commonly leave the *Bung-hole* open, for *nine* or *ten* days, to *ferment* and *purifie*; for though in moſt places they adde *ſtraining* to all this, yet ſome of the *Husks* and *Ordure* will remain in it. The *Veſſel* after a day or two ſtanding, is fill'd up, and ſtill as the *Cider* waſtes in working, they ſupplie it again, till no more *filth* riſes; and then *ſtop* it up very accurately cloſe, leaving only a ſmall *breathing* hole to give it air for a *Moneth* after, and to prevent the *burſting* of the *Veſſel*.

Note, That they ſometimes put ⅓ *Pears*, and ⅓ of *Apples*.

The uſual Names *of* Gloceſter-ſhire Cider-Fruit.

Red-ſtreaks, growing chiefly in the *Rye-Lands*, ſweet *White-Muſts*, *Red-Muſt*, the *Winter-Muſt*, the *Streak-Muſt*, the *Gennet-Moyl*, the *Woodcock-Apple*, the *Bromſgrove-Crab*, the *Great-white-Crab*, the *Heming*, and divers other ſorts, but theſe are the principal.

The *Pears* for *Perry* are,

The *Red Squaſh-pear* eſteem'd the beſt, the *John-pear*, the *Harpary Green-pear*, the *Drake-pear*, the *Green Squaſh-pear*, the *Mary-pear*, the *Lullam-pear*: theſe are the chief.

Another

Another Account of CIDER *from a* Perſon *of great* Experience.

Cider-Apples for ſtrength, and a long laſting *Drink*, is beſt made of the *Fox-Whelp* of the *Foreſt* of *Deane*, but which comes not to be drunk till *two* or *three years* old.

2. *Bromsborrow-Crab* the ſecond year; In the Coaſt and Tract 'twixt *Hereford* and *Ledbury*.

3. *Under-leaf*, beſt at *two* years, a very plentiful bearer hath a *Rheniſh-wine* flavour; the very *beſt* of all *Ciders* of this kind, *hoarded* a little within doors. The *longer* you would *keep*, the *longer* you muſt *hoard* your *Fruit*.

4. The *Red-ſtrake* of *Kings-Capel*, and thoſe parts, is in great variety: Some make *Cider* that is not of continuance, yet pleaſant and good; others, that laſts long, inclining towards the *Bromsborrow Crab* rather than a *Red-ſtrake*.

5. A long pale *Apple*, called the *Coleing*, about *Ludlow*, an extraordinary bearer.

6. The *Arier-Apple*, a conſtant *bearer*, making a ſtrong and laſting *Cider*; ſome call them *Richards*, ſome *Grang-apples*; and indeed they make ſo excellent a *Drink*, that they are worthy to be recover'd into uſe.

7. The *Olive*, well known about *Ludlow*, may, I conceive be accounted of the *Winter-Cider Apples*, of which 'tis the conſtant report, that an *Hogs-head* of the *Fruit* will yield an *Hogs-head* of *Cider*.

The *Summer-Ciders* are,

1. The *Gennet-Moyl* of one year: The beſt *Baking-Apple* that grows, and keeps long *baked*; but not ſo *unbaked* without growing *mealy*: it *drys* well in the *Oven*, and with little trouble. The *Gennet-Moyl Cider*, when the *Fruit* is well *hoarded* and mellow, will body, and keep better.

2. The Summer *Red-ſtrake*, of a wonderful *fragrant* and *Aromatique* quality.

3. Sir *Ed. Harley's little Apple*, eſteemed to make one of the richeſt *Ciders* in the World. Alſo, his,

4. *Great Summer-Apple*, reſembling the *Red-ſtrake*, juicy and *Aromatique*.

5. The *White-Muſt*, *ſtreaked Muſt*, &c. great bearers, and their *Cider* early ripe.

6. *Pearmains*, have made excellent *Cider*, as good, if not ſuperior to any other in ſome years; and though it be true, that every ſort of *Fruit* makes better *Drink* ſome years than others; yet, for the moſt part, the goodneſs and perfection of *Cider* reſults from the lucky, or intelligent *Gathering*, or *Hoarding* of the *Fruit*, or from both; and this *knowledge* muſt be from *Experience*.

7. Generally, the *Cider* longeſt in *fining*, is ſtrongeſt and beſt laſting, eſpecially if the *fruit* have been well *hoarded* for ſome time.

8. *Cider* made of *Green*, and immature *Fruit*, will not *fine* kindly, and when it does, it abides not long good, but ſuddenly becomes *eagre*.

9. *Cider* kept in very cool *Cellars*, if made of ripe *Fruit*, renders it long in *fining*, and ſometimes *Cider* by expoſing abroad in the *Sun*, and kept *Warm*, hath ſooner *matur'd*, and continu'd long good: But the beſt *Drink* is that which *fines* of it ſelf, preſerved in an indifferent temper.

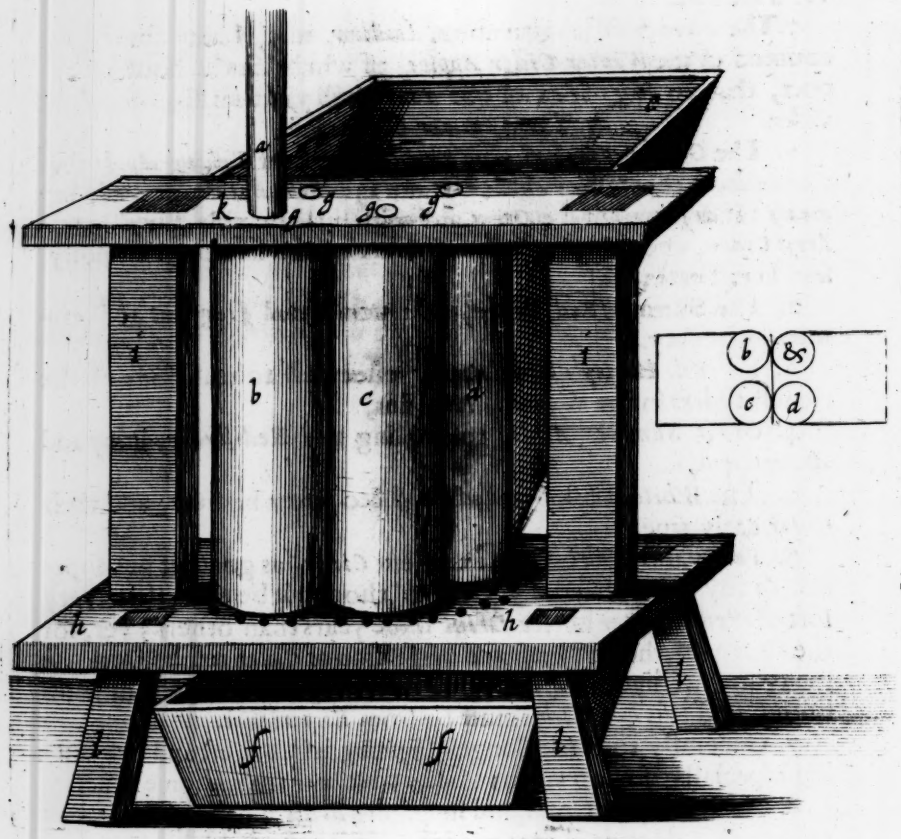
10. All *Cider* ſuffers *Fermentation* when Trees are *bloſſoming*, though it be never ſo old; and *Cider* of very ripe *Fruit*, if *Bottl'd* in that *ſeaſon*, will acquire a *fragrancy* of the *Bloſſom*.

11. New *Cider*, and all *diluted* and watred *Ciders*, are great *Enemies* to the *Teeth*, and cauſe violent *pains* in them, and *Rheums* in the *Head*.

12. One *Rotten-Apple*, of the *ſame kind* with the *ſound*, corrupts a whole *Veſſel*, and makes it *Muſty*. But,

To *Conclude* this *Treatiſe*,

We will gratifie the *Cider-Maſter* with the *Conſtruction* of a new kind of *Preſs* brought into the *R. Society*, by their *Curator*, the ingenious Mr. *Hooke*, and, if perfectly underſtood by him that ſhall imitate it, recommended not only for its extraordinary *Diſpatch*, but for many other *vertues* of it, chiefly, the accurately *grinding* of the *Pulp*, and keeping the *Huſks* from deſcending with the *Liquor*.



Explication

Explication of the *Figures.*

a The *Axis*, by which *four Cylinders* are to be mov'd, either by the force of *Men*, *Horſes*, *Wind*, or *Water*, &c.

b. c. d Three of the 4 (viſible) *Cylinders*, ſo placed, that thoſe which are firſt to *bruiſe* the *Apples*, may ſtand at about *half* an *Inch*, or leſs *diſtance* from each other: Thoſe that are to preſs out the *juice* may join as *cloſe*, as they can well be made to move.

f. f The *Trough*, in which to receive the *Liquor*, running through certain *holes* made in the lower *Plate* there marked.

e. e The *Hopper*, made *tapering* towards the *bottom*, in which you fling the *Apples*, and ſupply them as they *ſink* towards the *Cylinders*. Note, That ſuch another *Hopper* is ſuppos'd to be alſo made, and fitted to this *fore-part* of the *Preſs*, but here omitted, that the *proſpect* and *deſcription* of the *Cylinders* may the better be laid open and *demonſtrated.*

g. g. g The *Spindles* of each *Cylinder.*

h. h. i. i. k. k The *Frame*, conſiſting of two *Plates*, and two *Pilaſters*, which hold the *Cylinders* together. *Note*, That the *Cylinders* muſt be made of excellent *Oken* Timber, or other *hard* Wood; the *dimenſions* about 3 *foot* long, one *foot* and half *diameter*: The reſt of the *Frame* for *thickneſs*, &c. of *ſize* and *ſtrength* proportionable.

L L The *Legs* which ſupport the *Frame.*

FIG. II.

Repreſents the *Ichnography* of the *Firſt.*

FINIS.